



# ENVIRONMENTAL ASSESSMENT BOARD

VOLUME: 323

DATE: Wednesday, August 21, 1991

BEFORE:

A. KOVEN Chairman

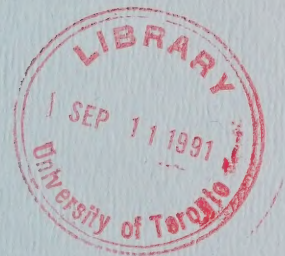
E. MARTEL Member

FOR HEARING UPDATES CALL (COLLECT CALLS ACCEPTED) (416) 963-1249

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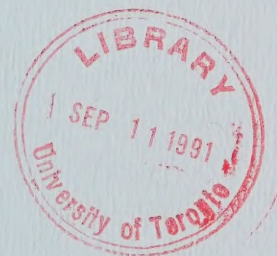
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HEARING ON THE PROPOSAL BY THE MINISTRY OF NATURAL  
RESOURCES FOR A CLASS ENVIRONMENTAL ASSESSMENT FOR  
TIMBER MANAGEMENT ON CROWN LANDS IN ONTARIO

IN THE MATTER of the Environmental  
Assessment Act, R.S.O. 1980, c.140;

- and -

IN THE MATTER of the Class Environmental  
Assessment for Timber Management on Crown  
Lands in Ontario;

- and -

IN THE MATTER OF a Notice by the  
Honourable Jim Bradley, Minister of the  
Environment, requiring the Environmental  
Assessment Board to hold a hearing with  
respect to a Class Environmental  
Assessment (No. NR-AA-30) of an  
undertaking by the Ministry of Natural  
Resources for the activity of timber  
management on Crown Lands in Ontario.

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Public Hearing held at the Valhalla Inn,  
1 Valhalla Inn Road, Ballroom 3, Thunder Bay,  
Ontario, on Wednesday, August 21st, 1991,  
commencing at 9:00 a.m.

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VOLUME 323

BEFORE:

MRS. ANNE KOVEN  
MR. ELIE MARTEL

Chairman  
Member





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TOURISM ASSOCIATION





I N D E X   O F   P R O C E E D I N G S

Witness:

Page No.

THOMAS S.H. BAXTER; Sworn

57031





I N D E X   O F   E X H I B I T S

<u>Exhibit No.</u>	<u>Description</u>	<u>Page No.</u>
1908A	10-page executive summary, overview of Thomas Baxter's witness statement.	57034
1908B	Mr. Baxter's witness statement.	57035
1908C	Eight-page curriculum vitae of Mr. Thomas Baxter.	57035
1908D	Book entitled: The Digital Forest by Thomas S. W. Baxter.	57035
1908E	Publication entitled: The Birding Handbook, Eastern Lake Superior, authored by T.S.H. Baxter, 1985.	57035
1909	MNR interrogatory questions and answers thereto provided by Mr. Baxter.	57121
1910	Eight-page paper entitled: Effect of Forest Fragmentation on Bird and Bird Populations by Chandler A. Robbins.	57125
1911	Excerpt from book by Malcolm Hunter Jr. entitled: Wildlife Forests and Forestry, Principles of Managing Forests for Biological Diversity, produced by Wildlife Department, College of Forest Resources, University of Maine.	57149
1912	Affidavit of Tracy Tieman dated August 21, 1991.	57151





1       ---Upon commencing at 9:00 a.m.

2                   MADAM CHAIR: Good morning. Please be  
3 seated.

4                   Good morning, Mr. Baxter.

5                   Mr. Baxter, do you wish to have your  
6 evidence sworn or affirmed?

7                   MR. BAXTER: Whatever is the procedure is  
8 fine.

9                   MADAM CHAIR: Okay, thank you. Could you  
10 approach the Board, please.

11                   THOMAS BAXTER; Sworn

12                   MADAM CHAIR: The Board is ready whenever  
13 you are, Mr. Baxter. And how long will your  
14 presentation be this morning?

15                   MR. BAXTER: What I have to say here,  
16 probably about an hour at most, and I have a couple of  
17 points that would lead me to -- originally I planned to  
18 bring some material in tomorrow, but I understand you  
19 don't want to meet tomorrow if you can help it, so I  
20 can deal with that. I'll just preface what I have to  
21 say. I have terms and conditions which are in draft  
22 and I'm not prepared to talk about them this morning,,  
23 the actual material as I was going to type up tonight,  
24 so if you want them to be seen with me present to talk  
25 about them, that can be done tomorrow. If not, I can

1 send them to Toronto and they can be presented as an  
2 exhibit.

3 MADAM CHAIR: All right, thank you. Why  
4 don't we get on with your presentation.

5 And will the parties have questions for  
6 Mr. Baxter. Mr. Cassidy?

7 MR. CASSIDY: Yes.

8 MADAM CHAIR: Mr. Cassidy, how long will  
9 you be in questioning?

10 MR. CASSIDY: I would say half an hour or  
11 less.

12 MADAM CHAIR: Thank you. Ms. Seaborn, do  
13 you have any questions for Mr. Baxter?

14 MS. SEABORN: No, Madam Chair, I don't  
15 have any questions. I thought we might mark the  
16 material that we received from Mr. Baxter though prior  
17 to his appearance here as an exhibit before we get too  
18 far along into his presentation.

19 MADAM CHAIR: Good idea. Thank you.

20 Ms. Blastorah, do you have questions for  
21 Mr. Baxter?

22 MS. BLASTORAH: Possibly 15 minutes or  
23 less. I do have one question, however. Mr. Baxter  
24 indicated that he didn't have copies of his terms and  
25 conditions available today. I am just wondering if

1 he's in a position to tell us what they are so that we  
2 can nevertheless ask questions about them even if they  
3 aren't here.

4 MADAM CHAIR: Is that possible, Mr.  
5 Baxter?

6 MR. BAXTER: Yes, I'm prepared to talk  
7 about the main points, so that shouldn't be a problem  
8 there.

9 MS. BLASTORAH: I should just comment  
10 that because we haven't had the terms and conditions,  
11 that may affect my estimate of cross-examination, but I  
12 think at this point we should be 15 minutes or less.

13 MADAM CHAIR: Okay, good. Mr. Baxter, we  
14 will make the written material you gave the Board an  
15 exhibit. Now, there are various pieces of it.

16 Now, do the parties have the large  
17 package of information and the separate executive  
18 summary prepared by Mr. Baxter?

19 MS. SEABORN: I have an executive summary  
20 and a witness statement that has appendices attached to  
21 it.

22 MADAM CHAIR: Yes, that's fine. Mr.  
23 Baxter's curriculum vitae was submitted separately, I  
24 think. Do the parties want that to be part of the  
25 exhibit package as well. That will be three parts,



1 and I guess that is it.

2 Also, the Board received a copy of Mr.  
3 Baxter's book, The Digital Forest. Do the parties wish  
4 that to be made an exhibit?

5 MS. BLASTORAH: I think perhaps we should  
6 ask Mr. Baxter if he's planning on filing it.

7 MADAM CHAIR: Do you wish that to be part  
8 of your evidence, Mr. Baxter?

9 MR. BAXTER: Yes. It was submitted as  
10 part of the material.

11 MADAM CHAIR: All right. Then we will  
12 have four parts to Mr. Baxter's written submission to  
13 the Board, and why don't -- this will be assigned  
14 Exhibit No. 1908.

15 And Exhibit 1908A will be an executive  
16 summary, an overview of Mr. Baxter's witness statement  
17 consisting of ten pages; 1908B will be Mr. Baxter's  
18 witness statement, which are paginated differently, I  
19 don't know how many pages there are, but we all have it  
20 in this form; Exhibit 1908C will be Mr. Baxter's  
21 curriculum vitae consisting of eight pages; and Exhibit  
22 1908D will be Mr. Baxter's book, The Digital Forest,  
23 and a copy of that is in the Board's office and we have  
24 a copy with us here.

25

1 ---EXHIBIT NO. 1908A: 10-page executive summary,  
2 overview of Thomas Baxter's  
3 witness statement.

4 ---EXHIBIT NO. 1908B: Mr. Baxter's witness statement.

5 ---EXHIBIT NO. 1908C: Eight-page curriculum vitae of  
6 Mr. Thomas Baxter.

7 ---EXHIBIT NO. 1908D: Book entitled: The Digital Forest  
8 by Thomas S. W. Baxter.

9 MADAM CHAIR: Mr. Baxter, was it also  
10 your intention to file as evidence The Birding Handbook  
11 of Eastern Lake Superior?

12 MR. BAXTER: Yes, it is.

13 MADAM CHAIR: All right. This  
14 publication will be Exhibit 1908E, the title being:  
15 The Birding Handbook, Eastern Lake Superior, author  
16 T.S.H. Baxter and the date is 1985.

17 ---EXHIBIT NO. 1908E: Publication entitled: The Birding  
18 Handbook, Eastern Lake Superior,  
19 authored by T.S.H. Baxter, 1985.

20 MADAM CHAIR: All right. I think we are  
21 ready when you are, Mr. Baxter.

22 MR. BAXTER: All right, thank you very  
23 much, Madam Chair and members of the Board.

24 I would like to just highlight some of  
25 the points that I have raised in my witness statement  
and draw attention to some of the issues that have come  
up as either interrogatories or as indicated points to

1       be pursued in cross-examination.

2                       I will express again that I believe that  
3       timber management has such a large impact on the  
4       natural resource base, the land mass, the plants and  
5       animal life and the water resources of the province  
6       that we cannot afford to think of timber management in  
7       this hearing context as simply an issue involving trees  
8       themselves, we have to look at the whole scope, and so  
9       the issue at hand, as far as I am concerned, is to look  
10      at the forest as a biological entity in which all the  
11      components are considered and in which one then has  
12      some solid foundation of understanding as to what's  
13      going on.

14                     Consequently I take issue, and have  
15      consistently for years, with the notion that anything  
16      done in terms of protection should be done on a  
17      representative basis, rather I believe that what's  
18      happening in each area is distinct and is maybe unique,  
19      it may not be, but certainly we do not have sufficient  
20      information about the entire area of the undertaking to  
21      be so bold as to suggest that areas of representation  
22      are all that we need to be concerned about.

23                     So I have prepared the witness statement  
24      as you have it on the basis that there are a number of  
25      levels of scale that are at stake in biological systems



1 and that, therefore, we must understand what's  
2 happening in each district context before we set out to  
3 have any other plans.

4 The problem is that we already have in  
5 place a very large and well-established system for  
6 logging, for using the land for other purposes, and we  
7 have, as has been evident in this hearing process, a  
8 tremendous number of interests with a particular point  
9 of view.

10 Now, I'm saying that we have been seeing  
11 a gradual movement or change in the amount of forested  
12 land available over the years, and although I realize  
13 that legally southern Ontario is not part of this  
14 hearing process, in terms of the biological issues and  
15 in terms of the area of Ontario's jurisdiction,  
16 southern Ontario should be borne in mind as part of the  
17 biological system.

18 In particular, southern Ontario was  
19 forested at one time entirely and in the course of the  
20 development of the history of this province and of  
21 resource use the bulk of the forest lands in southern  
22 Ontario has been removed for a variety of reasons, and  
23 I dealt with some of those in my book The Digital  
24 Forest.

25 So I'm saying that the land available for

1 forest is reducing and is gradually creeping  
2 northwards, the area of clearing is gradually creeping  
3 northwards as a large area of open land used for a  
4 variety of purposes.

5 So I'm suggesting that we need to  
6 re-think the process, we need to do so in a way that  
7 doesn't disrupt the economic interests of those who are  
8 currently operating but, at the same time, looks to the  
9 realization that we have to have a plan that doesn't  
10 exceed what can be grown and that we cannot have all  
11 the interest groups involved having their needs  
12 satisfied if, in fact, the net result is to gradually  
13 decrease the amount of land growing trees.

14 So I have put together the arguments I  
15 have and I would like to just draw attention to a few  
16 of those again.

17 In particular, there's the issue of the  
18 process of the local study which I referred to in my  
19 witness statement, the need to be aware of what's going  
20 on in each district separately and not to assume that  
21 we know what's happening. I would like to just dwell  
22 on that for a second.

23 If we go back to basics, and I think we  
24 have to go back to basics, the forest consists of  
25 trees, that is rather obvious, but there's a certain

1 amount of land which contains a variety of soil types  
2 and mineral and organic composition, terrain which is  
3 influenced a lot by the degree of slope and elevation.  
4 Beyond those we've got a well- established system of  
5 measuring soil types and of determining what kind of  
6 forest trees grow on these sites.

7 If we look at it from a biological  
8 standpoint we then look at how do the trees grow, we  
9 enumerate not only the commercial trees that are  
10 present but we would want zoologically to be concerned  
11 about the other plant life that exists, and then we  
12 want to add to that a knowledge of the animal life in  
13 stages.

14 Now, it seems to me that it's rather  
15 obvious that there should be a disciplined approach to  
16 gathering information before one is presumptuous enough  
17 to say: Well, we'll divide this up for harvest  
18 according to our interest. And that hasn't been the  
19 case. So I'm suggesting that we backtrack and acquire  
20 this information.

21 We need to find out first whether or not  
22 we do know what's going on or not, and I'm using the  
23 birds as an example of information that is either  
24 present or missing to help illustrate this point for  
25 two reasons.



1                   I mention in the witness statement that  
2       birds are at the top of the trophic level, the  
3       biological level, so if they're going to survive they  
4       have to have everything else they depend upon in place;  
5       they must have the insects they eat and those insects  
6       in turn must have the plant life that they depend on  
7       and must in turn have the appropriate soil conditions  
8       and climate.

9                   Each of the organisms that are higher on  
10      the trophic scale, the insects and the birds, in turn,  
11      depend upon a variety of climatic conditions, weather  
12      conditions, conditions of cover, areas for suitable  
13      reproductive sites. We spout these things off in an  
14      ecological sense or in a theoretical sense, but when it  
15      comes down to practical application in forest  
16      management, it doesn't seem to be present, in my  
17      opinion. So I'm saying if we look at birds we can look  
18      at a variety of things.

19                  The first point I want to refer to is my  
20      Birding Handbook. The Birding Handbook, as I referred  
21      to the book in the witness statement, although it is  
22      not a scientific document in the sense of being  
23      published in the scientific literature, it does contain  
24      a form of scientific information. It contains the  
25      outcome of my own observations and my summary of other

1 peoples' observations from within an area from Sault  
2 Ste. Marie to Marathon, along the eastern shore of Lake  
3 Superior, and it showed there's a distribution pattern  
4 for a variety of birds.

5           Among those birds is a great many common  
6 species which we would find in a variety of locations  
7 and we might consider that we are almost wasting our  
8 time to document all of the common things that are  
9 occurring as if they are commonplace, but there's  
10 something that's allowing these individual species to  
11 be common and abundant.

12           In my witness statement on Table 1 I made  
13 a comparison between the conditions that occur in New  
14 Hampshire where a variety of studies have been done in  
15 terms of numbers of species as opposed to here, and we  
16 have a tremendously higher number of species of birds  
17 which occur in this area and that tells me that we  
18 would anticipate that there is some biological reason  
19 for this, that there must be ample nesting sites, there  
20 must be ample food supply and we may suspect that, in  
21 turn, these birds may benefit from the plants on which  
22 they live through the manner in which they forage.

23           So on the one side of the coin there is a  
24 great many common species and if we use that as the one  
25 side of the coin we then have to ask: Are those common

1 species common throughout the area of the undertaking.

2 But if we look at the area of the  
3 undertaking, the most southerly and easterly areas are  
4 primarily the Great Lakes/St. Lawrence Forest with a  
5 great deal of hardwood and the bird species represented  
6 in those conditions reflect that, birds which are  
7 associated primarily with conifers or that prefer a  
8 mixed forest appear throughout the area of the  
9 undertaking, but they increase in number and the number  
10 of species as we go north and west.

11 You can also find the area in which I  
12 worked for a number of years which has very high  
13 rainfall, has a very high density of birds per unit  
14 area and the area further west is dryer.

15 Now, if there is no need, as has been  
16 questioned by the Ministry of Natural Resources and by  
17 OFIA, if there is no need to be concerned about what is  
18 happening in each district, then in theory or in  
19 principle we should not find any differences from  
20 district to district, from distribution to contribution  
21 of wildlife, but that is not the case.

22 There are a number of individual bird  
23 species, I will mention two or three here, whose  
24 distribution is known very poorly in Ontario and  
25 throughout North America. The Connecticut warbler is

1 one of them, the Palm warbler is another, and these two  
2 are birds that are known to associate with wetlands and  
3 wetland edges and in association with certain forests.  
4 No one has yet been able to figure out exactly what it  
5 is that attracts these birds to certain wetland types  
6 and not others.

7 They are very common in Northeastern  
8 Ontario. Certainly they are uncommon in association  
9 with the ecotone or boundary line between the boreal  
10 forest and the Great Lakes Forest. But as we go north,  
11 and as we go west into dryer sites, we find they become  
12 more common.

13 The Conneticut warbler is a species which  
14 I have seldom seen in the Eastern shore of Lake  
15 Superior but is known to nest within some of the  
16 wetlands within the city limits of Thunder Bay.

17 The Palm warbler has only a handful of  
18 nest records, some doubtful or some in question, with  
19 the Royal Ontario Museum in Toronto from Ontario; that  
20 is, there is very few records that exist at all and  
21 even some of those are debatable because of the  
22 circumstances under which they were collected.

23 What this says to me is that it may seem  
24 from the forestry standpoint that these birds have no  
25 relevance to forestry, but we can't assume that, and we



1       should assume that if they are present in certain  
2       locations and not in others there is some combination  
3       of conditions that occurs that would cause them to be  
4       there and we might conclude that there may be some  
5       evidence that they are actually creating some benefit  
6       for tree growth under certain conditions.

7                       In the absence of doing any kind of work  
8       on these birds we will never know whether those are  
9       valid statements or invalid statements, and I am  
10      submitting that if we continue to practise forestry  
11      from the standpoint of users as the prime focus, then  
12      much of the knowledge just will not be acquired.

13                     In fact I am submitting that I believe  
14      that we will loose these species in the same way that  
15      the passenger pigeon was lost, and from the standpoint  
16      of endangered species, we do not know what the  
17      passenger pigeon ever did, if anything, in terms of  
18      affecting forest growth. We know it bred in large  
19      numbers across North America.

20                     I was recently reviewing, before coming  
21      here, the book Lake Superior by Grace Lee Newton,  
22      published in 1944, an American lady. She did some work  
23      on the history and the development around Lake Superior  
24      and she made reference to the Pigeon River area just  
25      south of us here at the turn of the century or

1       thereabouts in which there was a -- the report she had  
2       or reference she had pointed out to the opinion of the  
3       viewer as being a bad year for passenger pigeons, she  
4       had only seen a handful, maybe a few thousand, there  
5       used to be many million.

6               From my standpoint as a biologist and a  
7       person particularly interested in ornithology, I  
8       believe that birds do more than just depend upon the  
9       forest, I believe they actually influence the way in  
10      which shoots develop and the way in which the trees  
11      grow. I believe they ultimately affect crown form,  
12      they affect the amount of viability in both vegetative  
13      and reproductive and that is basically a large branch  
14      in the research in that area.

15             I have been doing some work on this and  
16      my results are encouraging and it is a little premature  
17      to deal with the individual results, but it seems to me  
18      from what I have that there is confirmations that birds  
19      actually have an influence over the manner in which the  
20      shoots develop and grow on trees through their efforts  
21      in foraging for insects.

22             So I guess I come down to the first point  
23      that I wanted to emphasize and; that is, that we do not  
24      have sufficient information to make any bald statements  
25      about individual organisms not being terribly important

1 to the issue of forestry.

2 Nor should we have any, I guess,  
3 presumption in thinking that we can carry on forestry  
4 or any other land use activity that might alter  
5 populations with the assumption that it is not really  
6 terribly important. That we somehow just protect  
7 representative sites. That is all that is necessary.  
8 I believe that is not the case, I believe we need to  
9 look locally, if events occur locally, in every area.

10 So I see a need for annual biological  
11 surveys and this is the second point I want to get to.  
12 If we are going to go -- to avoid making any more  
13 mistakes or, as earlier, avoid creating any conditions  
14 that we presently are blind to but might subsequently  
15 come up, then we need to have a look at the land mass  
16 as having had some value in the way in which it grew  
17 originally before European settlement here.

18 We need to conclude there must have been  
19 some series of mechanisms that maintain the forests in  
20 a healthy state and not only in the plant communities,  
21 but the animal communities of all types who are  
22 important. So I am saying now how do we go at that?

23 I believe if we want to find out correct  
24 information and follow this up we need areas that are  
25 not going to be under manipulative influence; that is,

1 is there or is there not going to be change through  
2 harvesting so that they no longer represent what they  
3 had prior to the harvest?

4 I believe we need to leave areas intact  
5 to follow their own natural mechanisms. Then we can  
6 go into these areas and find out more. So to go back  
7 to the Connecticut warbler, for example, or the Palm  
8 warbler, for example, we can make a master list of  
9 common species and uncommon species.

10 If we were doing inventories in each  
11 district, which would amount to a variety of transect  
12 counts, censuses throughout each field season every  
13 year, and if that was being done by people who lived  
14 and worked in these areas, then the very first thing  
15 that would arise from such material would be probably  
16 the evidence that some species occur more commonly in  
17 certain areas than others and more commonly than we  
18 know.

19 That would then draw attention to  
20 differences in distribution, it would provide the  
21 foundation of the basis for carrying out a more  
22 detailed design to research projects.

23 Now, without having done the inventories  
24 and without maintaining those inventories on an annual  
25 basis, we would probably miss a number of the events



1       and we would see them out off context. So we could  
2       have someone go in and study Connecticut warblers in a  
3       known site, in a particular wetland, and we could have  
4       a study which was very viable from science as a whole,  
5       from the standpoint of science as a whole. But they  
6       might not be able to provide my evidence that would  
7       help understand how forest management planning  
8       influences the entire broad scale of the area.

9                       MR. MARTEL: Can I ask you a question,  
10      Mr. Baxter?

11                     MR. BAXTER: Yes.

12                     MR. MARTEL: How intensive would you make  
13      this inventory? Are you talking an inventory of all  
14      birds?

15                     When I read your statement I wrote it  
16      down. Assuming that you were saying all birds, all  
17      species, how far would you take it; to include all  
18      animals in the areas you would set aside?

19                     MR. BAXTER: Have you read my response to  
20      the OFIA question to that?

21                     MR. MARTEL: No, I have not.

22                     MR. BAXTER: I have answered that and my  
23      answer is the same as I gave to the MNR as well.

24                     I know it is quite possible to do, as I  
25      did this as part of my work when I was in Lake Superior

1 Park, and the answer is, yes, I would eventually  
2 attempt to cover all organisms, certainly to begin with  
3 birds and mammals.

4 That was my answer. That we would start  
5 with birds and mammals and we would attempt to acquire  
6 a sound understanding of how many are in each district.  
7 There is a number of ways that we can get at actually  
8 achieving that. It is not by any means impossible with  
9 the staff I have recommended, and there are FMA staff  
10 members required to do it.

11 So if you would like I can digress and deal  
12 with that at the present time. Would you like me to go  
13 into that?

14 MR. MARTEL: Yes, because I think that  
15 sets the context of what you are --

16 MR. BAXTER: Okay.

17 MADAM CHAIR: Excuse me, Mr. Baxter, we  
18 did not see your -- we have the answers to your  
19 interrogatories to the OFIA.

20 Mr. Cassidy, could you tell me which  
21 question that was?

22 MR. CASSIDY: Madam Chair, I believe he  
23 is referring to the first interrogatory where the  
24 question was posed in relation to the executive  
25 summary. The collection of materials that I have would

1 indicate that is on page 1 after a covering letter to  
2 you.

3 MR. BAXTER: Yes. Question 1 is the  
4 prime one. The issue comes up again throughout the  
5 questions, but Question 1 is the --

6 MADAM CHAIR: I think from the Board's  
7 view, Mr. Baxter, we're just curious about all  
8 organisms.

9 Are we talking about hundreds of  
10 thousands of organisms, or are we talking about dozens  
11 of classes of organisms? Are we talking about the  
12 individuals as opposed to the species; what do you mean  
13 by that?

14 MR. BAXTER: You're right in the first  
15 instance, I do mean all organisms. Now, let me explain  
16 how this is done. It is not at all an endless job.

17 First off, somebody who is trained in  
18 this field in terms of biology, if they've begun the  
19 studies of the organisms, one of the things they're  
20 exposed to in course work is identification and any  
21 student through the biology system would go through  
22 this process of identification, so there's a learning,  
23 a skill period required, but I recommended that we  
24 begin with inventory of plant communities, small  
25 animals being birds and mammals to start with, and

1       those would be the ones on which I would build the  
2       foundation.

3                       Now, the way in which you go about it is  
4       you have people who are hired as biologists and were  
5       hired as small animal biologists as opposed to game  
6       animal biologists. Consequently their time is not  
7       diverted away to the other issues of game animals,  
8       which are already a major part of the Ministry of  
9       Natural Resources system.

10                      In each field season, the good field  
11       season begins in late April or May throughout most of  
12       northern Ontario and one can go through into October  
13       with good weather in most places.

14                      Most of the breeding occurs in late May  
15       through mid-July, so if you want to obtain information  
16       on a breeding population, you do so throughout the  
17       spring and summer season, and I recommended that each  
18       of these districts, prior to this most recent  
19       reorganization and with the exception of the far  
20       northern districts, had boundaries that were  
21       approximately 75 miles from the district office in any  
22       direction. There's a number of variations on that, but  
23       that is an approximate figure that works.

24                      A person can set out on a field survey  
25       that lasts for two or three days and cover a particular



1 area. It's not necessary to cover every square inch of  
2 forest, but one would obviously, or at least logically  
3 in my mind, go to the forest resource inventory maps to  
4 start with and determine what the variety of stands are  
5 inventoried, what kinds of habitat types might be in  
6 existence, and then begin to make a point of doing  
7 censuses on a regular basis, a planned basis each year  
8 throughout each part of the district so that the entire  
9 district land mass has had some sound representative  
10 cover.

11 MADAM CHAIR: Excuse me now, is that a  
12 census of the forest cover type as opposed to a census  
13 of the wildlife or the birds or the insects?

14 MR. BAXTER: No, what I'm saying is you  
15 use the information on cover types to give you some  
16 idea of what habitats might be in existence and then  
17 you identify the variety of habitats that occur  
18 throughout the districts, then you go into those areas  
19 and conduct surveys.

20 In case of birds, it can be done with  
21 transect counts according to a variety of established  
22 methods; with mammals you're probably getting into live  
23 trapping, using live traps at night, and with plants -  
24 of course, the plants don't move - so that you can go  
25 in at your leisure almost as they come up throughout

1 the season and mark a number of sites for study.

2 So over the course of five years  
3 districts in which we now have sporadic information  
4 could have that information replaced by fairly  
5 consistent records of occurrences and distributions  
6 within the district.

7 And this is what I set out to do  
8 systematically when I was in Lake Superior Park. We  
9 had a -- granted the context of the park was a little  
10 different, but this is one of the parks that happens to  
11 have logging, so it's a very special case, we set out  
12 to find out what was in the park using, first off, old  
13 records and then looking at locations and sites where  
14 different habitats occur, through the course of a  
15 number of field seasons we eventually did a number of  
16 things.

17 We turned up all the individuals that had  
18 been recorded as rare or occasional previously in the  
19 park, we have turned them up again at some point. We  
20 also established a much clearer idea as to the  
21 distributions of a number of species in the park which  
22 had been under some debate, certainly from the  
23 available information of park records.

24 As I recommended in the material I wrote  
25 at the time I was in the park, this is the same process

1       that can be applied too on a district basis, and I  
2       believe that if you don't do this you've got this  
3       serious problem that when you talk about managing for  
4       threatened, rare or endangered species you're always  
5       playing catch up, you're getting into this problem of  
6       responding to something when a cry of alarm goes out  
7       that something is missing; whereas if you do an  
8       inventory approach to start with and then build other  
9       more designed projects around that, you find out first  
10      what's occurring and you also get an idea of how much  
11      of that species is occurring and in how much of the  
12      district it occurs, you get an idea of what habitats  
13      there are.

14                   And then you have a logical base to say:  
15      Okay, now we know where this particular species is, we  
16      have some idea of its occurrence.

17                   If you want to raise the more thorny  
18      questions about: Do they serve any biological role,  
19      then you can proceed to have a designed experiment on a  
20      site which you now know on which they occur and you can  
21      exclude that from harvesting for a number years and  
22      actually find out more about the species.

23                   The present system what it does is, it  
24      responds to -- it just responds to an issue as somebody  
25      raises a cry of protest and I consider that to be just

1 an absence of advance planning.

2 I guess, Mr. Martel, am I helping to  
3 clarify this in your mind?

4 MR. MARTEL: Yes.

5 MR. BAXTER: To me this is fundamental to  
6 the whole process at stake. You just can't plan what  
7 you don't know. I've raised that issue several times  
8 through the time I've worked for the Ministry and since  
9 and it may seem an unpopular issue if you're seeking to  
10 develop a plan for other purposes, but if you know what  
11 is occurring in an area you at least can either  
12 confidently earmark what you know about it and you can  
13 clearly state: Yes, we know this much and we don't  
14 know this, but if you do not do that kind of inventory  
15 work across the board, well then, you end up with every  
16 plan is a new round of debate, every time a planning  
17 issue comes up for review you have a new group of  
18 hassles.

19 Now, in my opinion, my system would work  
20 far better, it would seek to acquire the information.  
21 There might be some adjustment for the Ministry over a  
22 few short years, but over the long-term, the Ministry  
23 would actually have a much more confident base to work  
24 on because as these inventories were gathered we would  
25 begin to earmark research problems, address those



1 research problems from the standpoint of biological and  
2 other scientific research, study these organisms and  
3 find out more about their life history on these sites.

4 The vast majority of living organisms,  
5 including birds, and despite the large amount of  
6 popular interest in birds as a hobby today, the vast  
7 majority of organisms have next to nothing known about  
8 them in terms of real information on how they live and,  
9 to me, this is a point of major concern.

10 So I think that I'll leave that point,  
11 unless we have further questions on it.

12 I have laid out both in my executive  
13 summary a sequence of steps required to acquire this  
14 information and set it into a long-term process.  
15 Basically you have to have the staff, the right staff,  
16 which the Ministry doesn't have now, you've got to have  
17 these people in every district, you set up an annual  
18 budget for them - and I have some figures that I think  
19 are workable, very simple figures that are very cheap,  
20 very low cost effort - so I can get to those if and  
21 when you would like to hear them.

22 Then you go on and you do these initial  
23 inventories, from those initial inventories you then  
24 earmark sites for study and you go back and do ongoing  
25 inventories, you form cooperative arrangements with

1 universities and you set up a research program and as  
2 you find out information you work this into the  
3 management planning processing.

4 And so instead of saying: Well, we have  
5 some group concerned about something or other which  
6 seems of no relevance, you at least have the  
7 information to work with that tells you exactly what  
8 you do know and points to specific information that  
9 should be obtained further.

10 So I guess we have digressed a little bit  
11 from where I was wanting to go, but I think that I want  
12 to come back to the issue of diversity as it relates to  
13 this topic and that was my next point.

14 We have problems with the word diversity,  
15 at least I do, because diversity implies somehow that  
16 if you have a lot of something, if you have a lot of  
17 species, somehow if you protect a lot of species you  
18 have achieved some kind of protective process, and that  
19 may be in some cases true.

20 But there are birds that occur in  
21 northern Ontario that are associated with small  
22 clearings, a number of the birds that are often  
23 referred to as open country birds in the field guides  
24 do not occupy wide open spaces in the north, if you see  
25 large amounts of farmlands as we have around Thunder

1 Bay, most species I have in mind would disappear, but  
2 if you go to an open clearing in the forest, a small  
3 clearing, you'll find these birds occupying the edge of  
4 the forest.

5                   There are also a number of species which  
6 occur preferably in these sites and nowhere else.  
7 There are birds that prefer the forest interior and  
8 nowhere else. Many of the birds will reject the  
9 habitat, not because the forest canopy is not there as  
10 they respond to it instinctively, but because the nest  
11 sites have been removed, and I referred in one of my  
12 responses to I believe the Ministry of Natural  
13 Resources to a question of this type.

14                   If you look at page 7 of my response to  
15 the MNR interrogatories, Question No. 22, I was asked  
16 to give examples of birds which are affected in some  
17 way by alterations in the forest structure, and I gave  
18 three examples.

19                   The last one is the winter wren which  
20 uses upturned tree roots. Forests which have undergone  
21 a lot of harvest may very well have some upturned tree  
22 roots, but if you remove the canopy the rest of the  
23 site conditions that the birds respond to in terms of  
24 protected canopy, shaded conditions, those will  
25 disappear and the winter wren will decline. And the

1 winter wren has been declining in North America for  
2 some years.

3 Now, whether or not this is related to  
4 forestry in particular or related to the more general  
5 process of land clearing is open to debate, but  
6 certainly there is a response to land clearing in terms  
7 of loss of habitat for the species.

8 By and large what the winter wren feeds  
9 on is only documented from some simple work on stomach  
10 analysis done back in the late 1920s and 30s.

11 So again, as an ornithologist I am  
12 interested in knowing why. I am not satisfied with  
13 saying: Fine, they ate something out there and they  
14 are now declining in number. I would like to know  
15 specifically why and I think that as we know why we can  
16 address whether or not that has any relationship to  
17 human practices and whether or not it might have some  
18 detrimental impact.

19 So to come back to the issue of  
20 diversity, if they were to carry out the forestry much  
21 the way it has been going even with some controls and  
22 regulations, but if we allow a continued land mass to  
23 be opened up to the degree it has, we may see a  
24 diversity of field inhabiting birds, birds which like  
25 larger areas or openings, but we will see a decline in



1 birds which require part of the in tact forest to be  
2 replaced, part of the understorey, part of the canopy  
3 of the established forest, some land mass which is not  
4 defined. We do not know exactly how much land mass  
5 birds respond to on a species by species basis, but  
6 they do differ quite a bit.

7               So I guess we have to -- if we are going  
8 to go with the the concept of biodiversity, which  
9 Forests for Tomorrow has talked a lot about, then we  
10 also have to temper that with some of their  
11 understanding of what other conditions may change the  
12 species' composition. We may have diversity but still  
13 not have all the species present.

14              So I am saying let's go again to a system  
15 inventory in every district, let's find out what is  
16 there and establish contiguous forest units, a fairly  
17 large piece, so that you are under permanent protection  
18 of some which become parts of this rotational forestry  
19 in order to ensure that all habitat types and all  
20 stages are maintained and if we have protected areas,  
21 then by and large old growth forests will be taken care  
22 of.

23              If we have areas that are undergoing  
24 various stages of harvest in a controlled regulated  
25 fashion so that you know you can go back to those sites

1 with confidence 30 or 40 or 80 years from now, then you  
2 will achieve the diversity through having different  
3 organisms in different stand types and different levels  
4 of regrowth.

5 I have lost my train of thought for a  
6 second here. Excuse me.

7 I also want to deal with the issue of  
8 biological survey versus some form of adaptive  
9 management approach to monitoring sites.

10 Adaptive management has been promoted by  
11 a number of people, Dr. Baskerville, Dr. Hollings, is  
12 the two well-known names in the field, and they do  
13 incorporate a number of biological methods of  
14 evaluation within their approach. However, they also  
15 argue that - a valid point to some degree - that you  
16 have to move ahead and make decisions now so that you  
17 can make some wise decisions for the future while the  
18 research is going on. You can't wait just for the  
19 research to be done. So I agree with that point, you  
20 can't just stop everything while the research is being  
21 done.

22 I think though that they propose that  
23 somehow there is a sense of wisdom inherent in human  
24 minds that one can go in and you take a group of  
25 intelligent minds from the various backgrounds and you

1 put these people together, you take them to these sites  
2 and they debate the points and somehow, out of that  
3 collective intellectual knowledge and wisdom from their  
4 own areas of research, there would be some compromise  
5 whereby the right decisions will be made and adaptive  
6 management will, therefore, allow some areas to be set  
7 aside through the wisdom of a person at the time or the  
8 people at the time, and other areas will be able to be  
9 available for various forms of use.

10 Now, I see a problem with that in that  
11 the history of human activity is that we have never  
12 lived up to that kind of wise thinking.

13 I made reference in response to one of  
14 the interrogatories to a book by Thurgood called Man in  
15 the Mediterranean Forest, which looks at the historical  
16 records of a variety of sources from the Bible, from  
17 old ancient writings, from a variety of groups of  
18 people of different linguistic and religious  
19 backgrounds trying to document how the forest of the  
20 Mediterranean, which was a dry land forest, was  
21 gradually removed and has not been replaced, has not  
22 been able to be replaced.

23 And he came to the conclusion that when  
24 any issue arose the net result was that regardless of  
25 those who were exercising -- one of exercising

1       restraint, the net result was to remove more forest for  
2       any reason; whether it was to burn a forest down  
3       because there was an invading group of people hiding in  
4       the forest near a walled city or to make walls with a  
5       city you were going to batter ram or to make military  
6       equipment of one form or another, or simply  
7       agriculture, clearing the land for agriculture. So  
8       once the land was cleared, the forest did not come  
9       back.

10               And, in my opinion, we have the potential  
11       to do the same thing here, and the fact that Southern  
12       Ontario is no longer a part of the consideration of  
13       this hearing process, to me, says that we are already  
14       well down the track in terms of removing forest on a  
15       permanent basis.

16               Certainly the Middle East has gone  
17       through a lot of social upheaval and economic upheaval,  
18       which of course may be attributed in large part to the  
19       politics of the area and the religious beliefs of the  
20       area but, nevertheless, the loss of income has, in  
21       large measure, been the result of not having had the  
22       soil base which the forests maintain to be able to work  
23       from, and I think we have the potential to do that  
24       here.

25               I guess I come back to my approach. My



1 approach is that you plan for the problem of human  
2 ignorance and arrogance by saying: Okay, we will put a  
3 good chunk of land aside on the assumption that we do  
4 not know everything and we will also maintain a large  
5 land base that we will use under some kind of  
6 controlled system. So we will actually parcel out how  
7 much we can use at a given period of time. So we will  
8 ultimately maintain one common amount of forest on an  
9 ongoing basis.

10 And, again, I guess I believe or I abhor  
11 that issue of wisdom where we do not have the so-called  
12 data or intelligence from any source to just be able to  
13 work everything out by calculation. We have to do  
14 some -- we have to have some wisdom in terms of  
15 protecting land on an ongoing basis.

16 There are other issues that I did not  
17 bother to raise in my witness statement and I will not  
18 pursue simply because I have not pursued the research  
19 far enough, and it is something that I will go through  
20 in my own life.

21 I do believe that there are some -- a  
22 number of herbicide-related and pest management-related  
23 issues that involve birds and involve their survival  
24 which have not been dealt with by the papers that have  
25 been presented by any party as reference material

1 through this process, and I submit that whether or not  
2 pesticides are harmful long term, I believe that they  
3 probably are and do not have the data now that I would  
4 be able to argue it.

5 But I suggest that if we followed my  
6 system, which again protects a lot of the land base on  
7 an ongoing basis, that we will have the opportunity to  
8 learn more about some of these other issues and about  
9 how organisms live in their physiological response to  
10 the environment.

11 I guess the one point I am trying to get  
12 at is, many of the studies to date that have dealt with  
13 pesticides in birds that revolved around one enzyme, I  
14 believe, more likely, there are blood parameters and  
15 liver parameters which would tell us more in the long  
16 term and if we followed these in relationship to a  
17 group of organisms living on one site, the ecology of  
18 the same organism we are studying physiologically, we  
19 would find a connection.

20 I do not have the data on this at the  
21 present time, but I have indicated several times in the  
22 material that I have submitted that it is my full  
23 intention to pursue the physiological route ultimately.

24 So I hope that the Board has the wisdom to  
25 look ahead in the absence of absolute data and set up a

1 system or encourage that terms and conditions come out  
2 of this process that leave room open to find out new  
3 information and I believe that if there is not a  
4 sufficient land base there, then we will just lose many  
5 of these species and we will not know more about them.

6 One point I also forgot to raise on this  
7 issue of diversity and a number of species, I forgot to  
8 mention that if we take tunnel vision and focus on the  
9 area of the undertaking, we sometimes miss important  
10 points.

11 In particular, if you go through the  
12 ornithological literature there is a suggestion of  
13 certain species that are extending their range  
14 northwards into Ontario, and this would appear to be a  
15 positive development as if somehow these organisms are  
16 benefitting from what we have here and are evolving to  
17 some new state, the wood thrush being one example.

18 But a number of these organisms have lost  
19 habitat in the States as the land has been cleared, and  
20 we might have suspected that as a survival mechanism  
21 these species are attempting to find conditions in  
22 which they could live.

23 We could also speculate maybe climate is  
24 a factor, but there is no evidence that the populations  
25 overall are increasing. The evidence for some of these

1 is the population is decreasing.

2 The wood thrush was recorded in Maine for  
3 the first time in certain areas in the early 1970s.  
4 That was reported in a paper by Morrison in which he  
5 was interested in the competitive ecology involved. He  
6 just reported that as a wood thrush moved in other  
7 thrushes changed some of their habits to accommodate  
8 the wood thrush. But from the standpoint of forestry  
9 we might ask, you know, why were those birds moving  
10 north and why are they disappearing further south.

11 So I would like to encourage us, again,  
12 to -- if we look at the organisms in particular, we  
13 begin to see through the life histories of individual  
14 organisms, we see a change in response to conditions  
15 that we cannot measure by assuming that certain events  
16 occur.

17 I guess that is the first part of what I  
18 wanted to say and I will be happy to go back over any  
19 of that as required.

20 I would like to address the issue of  
21 terms and conditions with some seriousness here. On  
22 the basis of what I have said previously, I think you  
23 can see that I am not interested in promoting the idea  
24 of tradeoffs. I do not believe you can put a group of  
25 parties together and just ask them to make a list of



1        what they will put up with, what they will tolerate,  
2        what they will trade away in order to make a deal. I  
3        think you have to go back to asking: What are the  
4        biological basics of a system, what maintains a system.  
5        I would like to see this now built into the terms and  
6        conditions.

7                        What I want to see in the terms and  
8        conditions is a recognition that we do not have all the  
9        knowledge of which to make many of the decisions that  
10       are now being made and, therefore, we must go back with  
11       some critical honesty about ourselves in terms of what  
12       we know to what conditions were here.

13                      The forest we harvest is based on  
14       previous conditions which we had no influence over and  
15       so we should go back and attempt to maintain that  
16       forest system in perpetuity so that we tend to be  
17       building into the abundance rather than reducing the  
18       abundance down less and less.

19                      So I would like to encourage the Board to  
20       pursue the issue of doing a touch-up process in terms  
21       of biological inventory first off, and that would  
22       encompass all the steps I have listed in my executive  
23       summary as to the kinds of knowledge that has to be  
24       obtained, how it will be built around biologists hired  
25       for that purpose, and how these people would become

1 part of the planning team and how they would serve as a  
2 liaison with the university, with other researchers, to  
3 carry out more designed studies.

4 I would like to see some of the  
5 structural problems in the Ministry of Natural  
6 Resources that affect this taken care of. I would like  
7 to see, in particular, that district boundaries are of  
8 a size that they can be reached within about an hour to  
9 an hour and a half driving time from the district  
10 office so that we could reasonably expect somebody to  
11 begin their workday and to go out into the field and to  
12 spend the day there and drive back without wasting most  
13 of the day or the cost of operations on gasoline, but  
14 put most of their work into the biological fieldwork.

15 And I think this is a reasonable request.  
16 I think both foresters and biologists need to be out in  
17 the field, especially throughout the growing season,  
18 and not in the office, and the trend has been to go  
19 farther and farther into the office work.

20 The other day I phoned the Wawa District  
21 Office and everybody I wanted to speak to was in, and  
22 this is just the point I'm concerned about, that there  
23 is a pattern. Now it has grown over the years, as I  
24 dealt with in my book The Digital Forest in which there  
25 has been more and more time indoors and less and less

1 time actually dealing with the organisms in the field.

2 So I would like to see that built into  
3 the terms and conditions as a requirement and we are  
4 going to stop right there.

5 MR. MARTEL: Yes. I'm going to stop  
6 right there. Could you tell me, have you attempted to  
7 define just how many districts or areas would fit into  
8 this type of pattern as opposed to what exists now?

9 MR. BAXTER: Very minor modifications.  
10 In terms of areas accessible by road in the area of the  
11 undertaking, approximately 46 districts that occurred  
12 up until about March of this year would almost meet my  
13 standards in most places, and I raised in my witness  
14 statement the example of the Wawa District, which I  
15 know best, as a case in which has a history repeating  
16 itself because the same problem occurred back in the  
17 40s and in the 60s with that district. So, in my  
18 opinion, they just created a system of bad management  
19 again for another time around.

20 So if we went back to the condition prior  
21 to late winter of this year, we could almost achieve  
22 what I am after. It doesn't require a massive change.  
23 So the key to this really is -- the most important part  
24 of this process is to have a full-time biologist in the  
25 sub-discipline areas that I've referred to,

1 particularly plant ecology and small animal biology.

2 And maybe I'll just digress to that  
3 point. I believe that we have to have the permanent A  
4 salary employees in each of these districts, they must  
5 be guaranteed each year that they have enough B salary  
6 money to higher at least two people to assist them.  
7 That they need sufficient operating funds to allow them  
8 to maintain the vehicles that would get them place to  
9 place.

10 I think it's reasonable to expect that  
11 each of these districts would have a binocular  
12 dissecting microscope and a compound microscope and a  
13 small lab space, it would'nt require very much room to  
14 initiate this program, you can even use existing  
15 building space and just modify the space in most of the  
16 districts now.

17 So the first step then would be to  
18 require the re-assessment of the existing change, the  
19 most recent change, and a realignment of these  
20 boundaries, hiring of the staff, set up a guarantee of  
21 funding of some sort that would work within the  
22 existing system, and then I believe some kind of a  
23 standard has to be set, and I believe if the Ministry  
24 of Natural Resources is left alone to set this standard  
25 for what has to be obtained, that it will not be



1       obtained.

2                   I believe that the Ministry is dominated  
3       by the forestry interest still and I believe, actually  
4       as I discussed in my book, The Digital Forest, that in  
5       reality I really believe that there should be as many  
6       biologists as there are forests because the number of  
7       biological sub-disciplines far exceeds the number of  
8       forestry subjects that one can develop.

9                   However. Given the fact that monies are  
10      limited. I propose to compromise which were these two  
11      employees on A salary.

12                  I'd like to see built within the system a  
13      series of external standards which are used which  
14      involve some research people from a variety of fields.  
15      Particularly I notice that the Ministry leans heavily  
16      on the notion that the district manager is still the  
17      one who is responsible for many of the decisions, and  
18      we know in practice -- I know in practice from working  
19      for the Ministry that the district manager in turn will  
20      have two experiences, he may or may not disagree with  
21      his planning team's approach and he may be strongly  
22      influenced by his advisors higher up the ladder, and so  
23      I believe the structure of the system must - which is  
24      always going to be prone to this - must have some other  
25      corrective force built in, and I prefer to see that in

1 terms of some kind of people who are brought in, maybe  
2 different people at different times rather than having  
3 the same people. So they don't get the sense that they  
4 are the committee.

5 I disagree with the committee approach, I  
6 believe it will cost the province phenomenally. I  
7 believe from my own experience living in a small town  
8 that committees will form the basis of disrupting a lot  
9 of the goals. When you have a committee consisting of  
10 a whole variety of interests in a small town you tend  
11 to have the business concerns of the town and the  
12 immediate problems of the town as the mainstay of every  
13 issue, regardless of what else is going on.

14 I have been through the business route, I  
15 have some of my own debt remaining from that and I have  
16 my own memory of trying to make ends meet, trying to  
17 plan orders. I've been through the process, I refer to  
18 being chairman of a committee -- a tourism committee in  
19 Wawa in my CV.

20 During that process we had a great many  
21 interests on the committee, a great many differences of  
22 opinion. We met for about a two-year span in the one  
23 committee before we finally resolved some of the things  
24 we were after. It's a process that is very costly, no  
25 one was paying us at the time. Had there been a wage

1       going out for that, it would be a drain very often to  
2       achieve some of the goals.

3               So I see in the terms and conditions that  
4       most parties have recommended that this committee idea  
5       is a very popular idea, but I really encourage the  
6       Board to re-think this very seriously, and I would  
7       recommend that the committee idea be given a different  
8       status.

9               There should be the opportunity for  
10      anyone and everyone to provide input as officially  
11      occurs now, but differently than what occurs now.

12              There should be some external standard in  
13      terms of the amount of land mass which must be  
14      maintained and some means of bringing scientific  
15      research into the consideration of what's taking place  
16      on a regular basis.

17              So that my reading of the terms and  
18      conditions suggests that the idea, the process would go  
19      something like this like the committee went through.

20              You would have desenting views on the  
21      committee, you would have the majority opinion,  
22      whatever that happens to be, would go forward, the  
23      committee would either say: This is the overall view  
24      or there is a desenting view and submit a desenting  
25      view as well.

1                   They could then turn around and say:

2       Well, we have heard all the opinions of all the parties  
3       at particular stakeholders committee. We have listened  
4       to those who disagree, but they can turn around, as  
5       they do now, and say: Well, we've made a decision in  
6       the opposite direction.

7                   Now, if we had a known land mass set  
8       aside in which a certain amount was going to be  
9       protected, not available to any kind of a harvest ever,  
10      then a certain portion of the land mass was going to be  
11      put aside for ongoing resource use, well then everybody  
12      would really have a much clearer idea of who is getting  
13      what on a regular basis.

14                  Not being discussed - at least I haven't  
15      heard to date - or not hearing from how other land use  
16      issues will be incorporated into the Ministry's cutting  
17      program if Hydro lines go through and new Hydro lines  
18      go through - I gather there's another Class EA starting  
19      up on the issue of transmission lines across the  
20      province. This is another issue that affects forestry,  
21      it affects the amount of land base involved. If we  
22      have a new round of mining exploration, a new surge,  
23      then we have again another issue.

24                  I would like to see these all brought  
25      together into one package and I would like to see some



1 long-term planning go into this province. What are the  
2 goals, how much land is available, how fast will it  
3 grow. These are the kinds of questions I would like to  
4 see answered. How much land is necessary to maintain  
5 our climate. How much land is necessary to maintain  
6 the biological processes that provide balance.

7 So the nuts and bolts of my terms and  
8 conditions goals are to see the terms and conditions  
9 rewritten to include a chronological sequence of  
10 events, this acquisition of information, realignment of  
11 some of the district boundaries, acquisition of new  
12 staff and establishment of biological standards which  
13 would then form the basis upon which other  
14 considerations would be given.

15 Now, obviously if you've already got many  
16 players in the system you can't just impose that, so  
17 there has to be a transition process, and I see that  
18 transition process as taking probably 10 years - five  
19 years to do the initial inventory work and another five  
20 years to begin making the shifts of direction.

21 And then subsequently to have a system of  
22 external evaluation that would not only report to  
23 parliament, or legislature rather, but would have the  
24 power to assess whether or not the standards which were  
25 originally imposed have been met, not just in terms of

1 compliance with timber management planning, but in  
2 terms of meeting an entire scope of biological issues.

3 It's my opinion if this is done, then  
4 this process that we are going through here will occur  
5 all over again in about 10 years, maybe in a different  
6 format, but will occur again because unless the parties  
7 can all see a future and know how they're going to fit  
8 into that future in terms of a planned package and know  
9 what kind of standards each area has to be able to  
10 meet, then at some point some party will step over the  
11 bound of another party and the whole process of dispute  
12 will start again. So I hope you look closely at this.

13 And those are the highlights. I am  
14 prepared to pursue any issue further, if you wish.

15 MADAM CHAIR: Mr. Baxter, if you are  
16 agreeable, the Board will take a morning break now and  
17 when we return we will hear from Mr. Cassidy.

18 MR. CASSIDY: Yes, thank you.

19 ---Recess at 10:10 a.m.

20 ---On resuming at 10:40 a.m.

21 MADAM CHAIR: Mr. Cassidy, you are going  
22 to begin your questioning of Mr. Baxter?

23 MR. CASSIDY: Yes. Thank you, Madam  
24 Chair.

25 Mr. Baxter, this morning you made a

1 comment, and I think I got an accurate note here that  
2 states that, you said something to the effect that we  
3 need areas that are not going to be changed through  
4 harvesting and we should leave them in tact to allow  
5 them to follow natural mechanisms or processes.

6 Assuming I got that right, would it be  
7 logical then, in your view, that we should not suppress  
8 forest fires?

9 MR. BAXTER: Yeah, by and large unless --

10 MR. CASSIDY: Sorry?

11 MR. BAXTER: Yes, unless you clearly  
12 have someone's life or livelihood at stake, direct  
13 livelihood.

14 MR. CASSIDY: Direct livelihood.

15 MR. BAXTER: Yes. So I agree that if  
16 you're in the midst of a cutting operation you've got  
17 people, machines involved, you're going to protect  
18 those people from that fire.

19 MR. CASSIDY: But that would be the only  
20 circumstance that you would suppress a forest fire?

21 MR. BAXTER: I don't know if I would want  
22 to be that absolute. I certainly believe that we  
23 should move towards some natural fire use and some  
24 tolerance of natural fires throughout the system.

25 I think we have to deal on a case-by-case

1 basis with them, and by and large I think the present  
2 trend that the Ministry's been following to make some  
3 decisions not to suppress some fires has been a wise  
4 move.

5 MR. CASSIDY: If there is a forest fire  
6 that is of sufficient size but yet is not posing an  
7 immediate safety threat to anyone but it is of  
8 sufficient size nevertheless to seriously impact upon  
9 the wood supply to a mill which supports a town, you  
10 would nevertheless let that fire burn?

11 MR. BAXTER: Rather than just say yes or  
12 no, let's go back to the fundamentals of my plan.

13 My system would say that 70 per cent of  
14 the district has the potential to be harvested at some  
15 time. Now, it may be that within that district there  
16 are areas which are currently growing that could be  
17 harvested in lieu of the wood that's going to be  
18 burned, so rather than go to either extreme I would  
19 like to see some system at stake that says: Yes,  
20 within that 70 per cent area is the livelihood of that  
21 company.

22 MR. CASSIDY: No, I was talking about the  
23 livelihood of the town, not just the company.

24 MR. BAXTER: Okay. So if there's a town  
25 at stake, whose livelihood is at stake, they're



1       presumably cutting on a licence of some sort within a  
2       district, possibly overlapping two districts perhaps.

3                   MR. CASSIDY: Right.

4                   MR. BAXTER: But reality is, that if one  
5       area burns, depending upon the size of that fire,  
6       there's a good change that some other area adjacent to  
7       that may remain standing and may be open to cut.

8                   So surely in that case, if we have a  
9       basic principle at stake or basic foundational  
10      standard, then we can leave some discretion open to the  
11      foresters involved to decide what areas can be opened  
12      up from within the 70 per cent to accommodate the fire  
13      or may be necessary to suppress part of that fire at  
14      least.

15                  MR. CASSIDY: So if I understand that  
16      answer then, you can see circumstances where you would  
17      suppress a forest fire for wood supply needs?

18                  MR. BAXTER: Yes.

19                  MR. CASSIDY: You were talking also about  
20      the question of allowing the land mass to open up, and  
21      this may have been in the context of southern Ontario,  
22      but for my purposes it doesn't matter.

23                  You said that if we allow the land mass  
24      to open up we will see a decline of those birds who  
25      need in tact canopy or need some sort of forest ecology

1 to survive.

2 Are you talking about permanent land  
3 clearing there?

4 MR. BAXTER: Yes, in part. I'm saying  
5 that, as I think I responded to one of your  
6 interrogatories, there's a net amount of area in this  
7 province that is being cleared that is increasing as we  
8 go along, and so that less and less forest creates the  
9 opportunity for maybe some field organisms to survive  
10 but certainly decreases the number of forest growing  
11 organisms including birds to live in those conditions.

12 MR. CASSIDY: Okay. And the area you're  
13 talking about is forested area that is being cleared  
14 for farms, urban development or something of that  
15 nature?

16 MR. BAXTER: Forests or forestry and  
17 mining, anything.

18 MR. CASSIDY: Well, forestry as we've  
19 discussed in this hearing, involves regenerating that  
20 forest and I'm having some difficulty understanding the  
21 relevance of your comment regarding permanent land  
22 clearing impacts to the concept of timber management as  
23 we've discussed in the hearing.

24 Perhaps you can help me with that.

25 MR. BAXTER: Okay. As you go through any

1 clearing exercise, even if it will regenerate, the  
2 reality is there's a time lag as a result, and during  
3 that time lag, which may be substantial, then the  
4 forest will not be present and the organisms that  
5 habitat that site will be inhabiting an open area site  
6 in response to those conditions.

7 So you have to look at the total -- the  
8 net total of land, both used for forestry and for other  
9 purposes.

10 MR. CASSIDY: Okay. I understand that,  
11 but you would agree that that's atemporal thing and  
12 that in fact there are recovery rates of varying  
13 degrees in the species, so that the decline you were  
14 talking about is a temporary one in some fashion?

15 MR. BAXTER: Yeah. The problem is the  
16 time frame, what is the time frame. I have problems  
17 with that as well, because I just reviewed Mr.  
18 Merrick's witness statement from back some time ago --

19 MR. CASSIDY: Mr. who?

20 MR. BAXTER: Mr. Merrick, George Merrick.

21 MR. CASSIDY: Oh, Merrick, I'm sorry. I  
22 thought you said Mark.

23 MR. BAXTER: Pardon me.

24 MR. CASSIDY: I thought I had heard all  
25 the witnesses. That's all right, go ahead.

1                   MR. BAXTER: So what I read in there was  
2                   some of his own experience with individual sites in  
3                   which he was concerned that they were not regenerating  
4                   as he had expected and changing not only the forest  
5                   composition but the rate of recovery.

6                   And I think we have that problem, that if  
7                   we have a large land area exposed to forestry we have  
8                   unpredictable variable rates of recovery, and certainly  
9                   larger clearcuts are exposed to a number of adversities  
10                  from frost heaving to winter kill and bud damage,  
11                  exposed to winds, increased insect infestation because  
12                  of high heat on the site. These things are all  
13                  increased as the size of the clearcut increases.

14                 MR. CASSIDY: You're aware that there are  
15                 witnesses who have testified to matters where they  
16                 disagree with Mr. Merrick's findings?

17                 MR. BAXTER: Yes.

18                 MR. CASSIDY: And natural regeneration  
19                 processes could potentially mean slower recovery of the  
20                 forest canopy that you need for birds?

21                 MR. BAXTER: That's possible in some  
22                 cases, yes.

23                 MR. CASSIDY: Okay. I want to move on to  
24                 this question of counting, and Mr. Martel and Mrs.  
25                 Koven asked you about it and I asked you about it in an



1       interrogatory, and I take it you have a positive view  
2       of the value of population inventory and monitoring; is  
3       that right?

4                   MR. BAXTER:   Yes, I do.

5                   MR. CASSIDY:   And, in fact, as I  
6       understand, it's an essential management tool to go out  
7       and count population numbers of mammals and other birds  
8       and animals; is that correct?

9                   MR. BAXTER:   That's certainly one of the  
10      tools available.

11                   MR. CASSIDY:   It's a critical tool from  
12      your perspective; isn't it?

13                   MR. BAXTER:   It is critical for me in  
14      this case with birds, yes, I believe we need to knno  
15      how many are there and how they're using the forest.

16                   MR. CASSIDY:   Okay.   Well, I've given you  
17      a transcript reference from another witness who  
18      testified, and it's Volume 283, and I've got a copy of  
19      it here for the Board.

20                   I don't think we need to make the  
21      transcript reference an exhibit.   It's page 50623 of  
22      the transcript for January 29th, 1991, and this is Mr.  
23      Maser who was called as a witness on behalf for Forests  
24      for Tomorrow, and I think he seems to suggest exactly  
25      the opposite of what you just said in response to a

1 question from Madam Chair where, in the middle of the  
2 page at about line 13 of page 50623, Madam Chair asked  
3 the question:

4 "What is your preferred approach to  
5 wildlife management?"

6 And he seems to focus on managing habitat  
7 and Madam Chair wanted further clarification and said:

8 "Not worry about populations?"

9 And he says:

10 "Populations can't be counted."

11 And it appears to me on the face of it  
12 that, in fact, there's a rather strong disagreement  
13 between you and Mr. Maser and I'm wondering if you can  
14 explain that.

15 MR. BAXTER: Certainly. First off, let's  
16 say that I believe that habitat management is good up  
17 to a point, so that it's one of those tools that would  
18 be used.

19 The issue at stake here is he's using as  
20 an example feral horses and antelope, larger animals,  
21 which have the problem that even if they use open  
22 country, they have places to hide.

23 You cannot get close to them enough to  
24 monitor their movements, they're very sensitive to  
25 human beings and they make very little noise.

1                   Now, the nice things about birds in  
2           particular is that they sing and you can monitor birds  
3           both by sight and by song. Now, if you know the songs  
4           you don't have to see the bird.

5                   Case in point, many years ago some of you  
6           may know, Dr. Murray Spiers who was at the U of T for  
7           years, he commented to me when I was discussing some of  
8           the observations I was making when I first came to  
9           Eastern Lake Superior he says: You know you're missing  
10          Lincoln sparrow and if you learn the song you'll find  
11          out it's very common.

12                  I did that and my sudden awareness of its  
13          appearance improved phenomenally because it's a bird  
14          that tends to sing within shrubs, it doesn't come out  
15          into the open very often.

16                  Now, the lesson that we learned there is  
17          that large mammal or large animal biology is different  
18          from small animal biology and, particularly, the  
19          biology of small birds is different even from large  
20          birds.

21                  We have this value of songbirds to deal  
22          with both song as well as sight, and the method of  
23          counting influences how accurate your population  
24          estimates are. Transects have pros and cons and they  
25          have definitely some problems with giving accurate

1 amounts.

2 I would like to refer to a paper that was  
3 done in the west by a man named Michael Morrison. This  
4 is in the Condor, Volume 86, pages 146 to 150. That's  
5 a publication of the Cooper Ornithological Society, 1984.  
6 The title is: Influence of Sample Size and Sample  
7 Design on Analysis of Avian Foraging Behaviour.

8 The net result is that when they did plot  
9 studies their accuracy improved phenomenally and they  
10 had much more accurate counts because they were staying  
11 in the same area.

12 I am currently working on a site in which  
13 I have been able to identify every male and I believe  
14 every female in the site consistently over the period  
15 of late May to early August, and I have recorded either  
16 every nest or the location I believe.

17 So I don't disagree with Mr. Maser in the  
18 context in which he's working, but if you learn with  
19 birds, their songs, you have a tool that's very good,  
20 and if you do plot studies as opposed to transects, you  
21 increase your accuracy and your precision tremendously.

22 MADAM CHAIR: Excuse me, Mr. Baxter,  
23 how large an area is the site you have been observing  
24 since May?

25 MR. BAXTER: The area I have is very



1 small, it's one and a half hectares.

2 MADAM CHAIR: Okay. And then what do you  
3 intend to do with those observations, to suggest that a  
4 much larger area has the same distributional  
5 population?

6 MR. BAXTER: No. I'm working strictly on  
7 one issue which is the foraging issue, and so whether  
8 or not that applies much farther is debatable, but I  
9 have a large number of trees which will meet sample  
10 design requirements, or sampling requirements for stats  
11 analysis and what I can draw from - the point I made  
12 earlier - that when I worked in Lake Superior Park, I  
13 worked with a large area, did a lot of transects.

14 Transects give you a good sense of the  
15 population. If you want to get detail you go back into  
16 certain sites, and when I was working in Lake Superior  
17 Park I had two sites that I monitored very intensively  
18 as well as doing transects, and those sites I have more  
19 accurate counts for as a result.

20 MR. MARTEL: But you're suggesting that  
21 it's easier to count all the birds in an area, easier  
22 to count than, let's say, all the horses in the area  
23 because --

24 MR. BAXTER: Yes.

25 MR. MARTEL: And to a layman--

1 MR. BAXTER: That seems impossible.

2 MR. MARTEL: That's right, because it's  
3 easy to see a horse or easy enough to see a horse, he's  
4 big enough, but all the little birds, I mean, that  
5 really is --

6 MR. BAXTER: Take you back to the point I  
7 raised earlier, that when you deal with mammals, first  
8 off, you're dealing with organisms which do a lot by  
9 smell and by sight and they see you before you see  
10 them, if they can take cover, they will, or they run.  
11 So the counts that you do, you tend to count a certain  
12 group that you see and then you lose track of them.

13 The same for the moose surveys, as most  
14 moose biologists know, they have some problem when they  
15 lose them in timber.

16 But with birds during the breeding season  
17 you have sound as your additional vehicle. So as long  
18 as you have reasonable hearing, you can learn those  
19 sounds and you can follow them and track them down and  
20 the birds, by instinct, will be hardpressed to leave  
21 their territory for long, so if you hang around,  
22 they'll come back and you get a very good count. It  
23 works very well.

24 MR. CASSIDY: I'm a layman too, Mr.  
25 Martel, and how do you tell one bird song from another

1 bird? How do you know that it's not the same bird  
2 that's singing?

3 MR. BAXTER: You mean from the same  
4 species?

5 MR. CASSIDY: Presumably.

6 MR. BAXTER: If it's the same song type  
7 from the same species they occupy a territory and the  
8 males have a distinct habitat of occupying different  
9 spots consistently, you can follow them and observe  
10 them.

11 MR. CASSIDY: How does a transect relate  
12 to--

13 MR. BAXTER: To this?

14 MR. CASSIDY: --to bird songs?

15 MR. BAXTER: In a transect you walk a  
16 transect and, depending upon how you do it, you either  
17 do continuous observation or else you make time counts  
18 at certain locations, and in those locations you record  
19 what you hear and see.

20 MR. CASSIDY: That's all area related?

21 MR. BAXTER: It is area related, that's  
22 right.

23 MR. CASSIDY: What's that got to do with  
24 songs?

25 MR. BAXTER: Songs are transmitted over a

1 certain area. Every bird has a song of a certain  
2 audibility level and once you learn those you can then  
3 record the numbers you hear and you can come back to  
4 the same transect day in and day out through the  
5 breeding season and follow that up.

6 If the bird is not present, you then have  
7 a choices to decide: Have I missed it because of my  
8 timing or because of my method or is the bird just not  
9 active on that particular day.

10 That is why I said, if you follow up  
11 transects with plots on certain sites you then get very  
12 accurate counts.

13 MR. CASSIDY: So --

14 MADAM CHAIR: Excuse me, Mr. Cassidy.  
15 Let's assume that someone with a finally tuned ear such  
16 as yours could do this - and I'm not questioning that  
17 you can certainly tell the difference between bird  
18 songs and so forth - the question is, is why we would  
19 do this on every one and a half acres of all the area  
20 of the undertaking, or why we would extrapolate those  
21 observations over the entire area of the undertaking?

22 And I ask that question in the context of  
23 extensive evidence we have heard from Dr. Euler and  
24 others at MNR with respect to two issues: One being  
25 the differences between supporting viable populations



1 of wildlife and so forth versus maintaining exact  
2 numerical populations of the same species in the same  
3 location everywhere in the area of the undertaking.

4 I can understand in a perfect world the  
5 benefit of knowing the location of all species so over  
6 time, and Dr. Euler's evidence I believe was over a  
7 very long time you would need to do this sort of work  
8 because there are other influences on wildlife and bird  
9 species, other influences on how we manage forests, so  
10 you need many years to see what those trends are.

11 But the question is: Why would we want  
12 to do it your way, and maybe the Board is missing  
13 something, but it seems that you want to count every  
14 bird and animal that is in the forest.

15 MR. BAXTER: Okay. First off, Dr.  
16 Euler's comments versus viable populations versus exact  
17 numbers, is this what you said?

18 MADAM CHAIR: Yes. We've had some large  
19 amount of testimony on the policies of MNR with respect  
20 to the protection of wildlife and one objective is to  
21 maintain viable populations; in other words, no matter  
22 what the activities of timber management, if they have  
23 some effect, then we never want to have the result be  
24 endanger a rare species, that we want populations  
25 protected somewhere, presumably where they can occur

1 naturally. And then the other side of that goal, and  
2 Dr. Euler's personal opinion was that he would not like  
3 to see any populations decline in numbers.

4 You seem to be supporting that latter  
5 argument, that we should identify everything and then  
6 make sure those populations never deplete and never  
7 change locations.

8 Because the other issue we've had looked  
9 at at this hearing a great deal is the mobility and  
10 adaptability of wildlife and birds to disturbances  
11 whether, they're clearcutting or fire or whatever.

12 MR. BAXTER: Okay. I'll deal with the  
13 issue of exact numbers first. I haven't said that I  
14 wanted to see the exact numbers maintained, what I said  
15 is I want to know what we don't know now, which is the  
16 mechanisms by which these organisms survive, and there  
17 are many that are possible candidates.

18 If we take the notion that we're going to  
19 maintain viable populations in some location, we're  
20 going to, again, go back to the idea of some  
21 representative habitat and hopefully the birds are  
22 going to be there, that is presumptuous.

23 Why, for instance, in northeastern  
24 Ontario are Connecticut warblers harder to find in some  
25 locations where the wetland habitat seems to be the

1 same as it is here. No one knows and think it will be  
2 a number of years of research.

3 Now, as far as the number of years to  
4 gather a concept of what the population size is  
5 approximately and what species are occurring in an  
6 area, I mentioned I spent seven years in Lake Superior  
7 Park doing extensive field work.

8 Now, the first year I spent my time  
9 becoming familiar with the habitats and birds that were  
10 there and trying to get an idea of what I was missing.  
11 The second year I went back and repeated surveys in the  
12 same locations as well as adding new locations I had  
13 not previously seen.

14 I found some of the species that others  
15 had found, I found most of them, but there were some I  
16 missed. As I went through the course of those years I  
17 gradually eventually over that seven-year span turned  
18 up not only all the common ones which I had found  
19 fairly easily, but I also turned up all the uncommon  
20 ones which had previously been reported.

21 So in a seven-year span I was able to not  
22 only repeat the level of work done by anyone else  
23 previously there, but also able to go far beyond that.

24 MADAM CHAIR: To a full cycle with  
25 respect to the population levels?

1                   MR. BAXTER: Yes, the populations, as you  
2 say, do change and they change for a variety of  
3 reasons; internal parasites, changing habitat, food  
4 supply, food supply fluctuates, wildlife.

5                   However, I cited Holmes paper in my  
6 witness statement, Holmes has worked in an area that  
7 has very little conifer in it and the populations of  
8 insects, particularly lepidoptera, fluctuated wildly  
9 over the years.

10                  Now, although they do fluctuate quite  
11 sharply here as well, it seems that conifers support a  
12 larger number of insects - that is well-known - and the  
13 bird population also seems to be higher, as a result.  
14 There seem to be a number of mechanisms available by  
15 which they can survive in a situation. So I would  
16 expect populations to fluctuate to some extent, but not  
17 wildly.

18                  There was a classic study done by a woman  
19 named Margaret Morris-Nice back in the 1930s on the  
20 Sals burnout and in that she found fluctuations to some  
21 degree in individuals, some died, some moved away, and  
22 by color banding she was able to show for several years  
23 which ones she had for which territorial boundaries  
24 changed but, over the long-term, population was fairly  
25 stable on the site.



1                   So in answer to this approach, I am not  
2                   interested in looking at exact numbers, but I question  
3                   the ability of anybody in the absence of these sound  
4                   field site studies to be able to define what will  
5                   maintain a viable population of species.

6                   MR. MARTEL: Mr. Baxter, then, are you  
7                   really suggesting more than you anticipate getting in  
8                   hopes that you would get the answers of why birds  
9                   occupy certain areas, what keeps them viable and how  
10                  they respond to nature and what they do in return?

11                  And I guess what I am asking is: Do you  
12                  have to do that all over in each district, or do you  
13                  have to find out what birds are in each district and  
14                  determine why those birds occupy the area, as opposed  
15                  to trying to do the whole ball of wax in every  
16                  district?

17                  MR. BAXTER: Well, there is no reason why  
18                  inventory cannot be done on every district on an  
19                  ongoing basis.

20                  MR. MARTEL: But it seems to me you are  
21                  going beyond that. What you want to know is why, why  
22                  birds come to a specific area, what causes them to  
23                  stay, why they are leaving somewhere else to come here  
24                  and what keeps those populations up in a specific area.

25                  Once you get the answer to the why, can

1       that not be applied then, or are you suggesting that  
2       the same factors would not apply in each district in  
3       the various bird types?

4               MR. BAXTER: I am saying we have good  
5       reason from the available public literature to doubt  
6       that it would be exactly the same district to district  
7       and what the reasons are.

8               There is a problem of human intelligence  
9       here, we are being arrogant if we think that we can  
10      understand enough from a group of studies alone to have  
11      essentially covered all we really need to know.

12              And to go back to the example I used for  
13      Palm studies in New Hampshire, lack of conifer to a  
14      large degree, a lot of hardwood, low lying locations of  
15      red spruce in particular.

16              A lot of the studies that were done by  
17      Holmes and other people including the Eastern Seaboard  
18      of the U.S., have suggested that a number of warbler  
19      species cannot occur together. In most studies  
20      involving warblers in the eastern area of the United  
21      States and the Maritimes in Canada end up with species  
22      lists approximately, oh, no more than about six or  
23      eight individuals at the most.

24              Now, we have about 20 breeding species on  
25      any site in Northern Ontario, in any forested area, at

1 any given time just of warblers.

2 Now, literature has come out of New  
3 England and other parts of the States, as there has been  
4 a whole body of ecology theory that's developed that  
5 says there are competitive mechanisms that prevent  
6 these birds or prevent other species from coming into  
7 these areas, and I suspect that is not the case. I  
8 suspect that food supplies are more of an issue. It  
9 has to do with the host of plants that support that  
10 food supply, in particular, the trees and the lack of  
11 conifers in some of these sites.

12 Now, we come to Northern Ontario and  
13 there's a great amount of conifer even in the Great  
14 Lakes/St. Lawrence Forest sites, many of them are, as  
15 in Lake Superior Park, are very heavy with conifer.

16 So that tells me that we should be much  
17 more cautious in our thinking and we need to do a great  
18 deal of work in Canada, which has not been able to be  
19 done in the States.

20 So, yes, from my personal research  
21 interests, I intend to continue this direction of  
22 research. But from the Ministry's standpoint and from  
23 land management, I believe what we need to see is, we  
24 need to see a sound amount of areas set aside that is  
25 not going to be exposed to any type of clearing

1 process. So that whatever is maintained in those  
2 poplations now, the way they are, will continue, and  
3 there is a whole variety of ways to get to this without  
4 undermining the whole goals of forestry.

5 So I think it is very important that we  
6 not banty terms like viable populations. We really do  
7 not have the measurements of these population sizes to  
8 start with or what controls for mechanism of  
9 development.

10 MADAM CHAIR: Mr. Cassidy?

11 MR. CASSIDY: In this book, The Digital  
12 Forest, Exhibit 1908, there is a chapter in here called  
13 15, Social influences in Humanistic Society. Is there  
14 any relevance to any of this to what is in issue at  
15 this hearing in this chapter?

16 MR. BAXTER: Oh, there certainly is.

17 MR. CASSIDY: So the question of the  
18 family, women's issues and homosexuality is relevant to  
19 this hearing that is discussed in this chapter?

20 MR. BAXTER: Yes. I have presented an  
21 issue that I believe firmly in and that is the issue of  
22 how the mind-set has changed dramatically in the way we  
23 view who we are today and they are every group and  
24 organization, as is well reflected in this process of  
25 the hearing.



1                   Every group says: I am valuable as  
2                   myself. I want what I want for my group. And you see  
3                   little understanding of the role that each party has to  
4                   play in order to maintain the system.

5                   We have got - as I am sure you have  
6                   thought lots about - we have got a native issue coming  
7                   up which is growing tremendously. We have got a whole  
8                   philosophy change in terms of who has rights to what  
9                   that have occurred in this society over the last 25 or  
10                  30 years, and it has got tremendous relevance, and  
11                  whether you agree with me or not I suppose is not the  
12                  issue. If I have not convinced you that is fine.

13                  But you are facing here the conflicts of  
14                  social issues. Everybody has wants, everybody wants  
15                  those wants to be called rights and those rights cost  
16                  money to maintain, a tremendous amount of money, and  
17                  that money ultimately comes by dipping back into the  
18                  resource base to funding. You can't do it all by value  
19                  added income.

20                  MR. CASSIDY: On page 179 of this chapter  
21                  you wrote -- you said the following:

22                  "For many women today it is evident in  
23                  watching them that they are trying to  
24                  build a career promoting the sense of a  
25                  woman's mental facilities in the pursuit

1 of business or academic acumen, but they  
2 are also fighting within themselves the  
3 natural maternal instincts that require a  
4 man's love, a happy home and the  
5 emotional foundation in which to raise  
6 the children.

7 Many women express on phone-in call  
8 shows that they are as happy by their own  
9 choice in the home as they were in the  
10 job.

11 For many women some work plus family  
12 is possible. There is, however, the fact  
13 that for some women two jobs are just too  
14 much. There is also the problem that  
15 many women may be looking for a high  
16 paying major job in the workforce in  
17 quantities which the economy cannot bear,  
18 which our environmental consumption rate  
19 cannot bear and for which the financial  
20 demands for day care cannot be met by  
21 governmental or business means."

22 Now, just stopping right there. I do not  
23 know when you wrote this book, but do you honestly  
24 believe that today and, if so how, is that at all  
25 relevant to what we have been dealing with in this

1       hearing?

2                       MR. BAXTER:  Yes, I do believe it and I  
3       realize -- I hope it is not offensive, but perhaps it  
4       may be to some.

5                       What I realize is at stake is that there  
6       is no problem with who works or how they work, but the  
7       problem is each time you add a new variable to the  
8       system you add the cost to the system.  So if a woman  
9       wants to work, we've got no end to cases in the social  
10      realm today of people in great conflict.

11                      We have another federal government  
12      process going on right now over reproductive  
13      technologies, and over that reproductive technologies  
14      issue we have got people on one hand terribly  
15      distraught because they can't bear children, others who  
16      want techniques to manipulate the number of children  
17      that they have or the kinds of diseases they might be  
18      carrying in the genetic makeup of the population.

19                      Now, that is beyond the bounds of this  
20      particular hearing, I fully agree, but it does have an  
21      escalating cost issue to pursue all of these.  
22      Somewhere along the line we have lost the context with  
23      the family.

24                      Now, personally I have no objection to  
25      whether women work or not, and that is conveyed in that

1 chapter, although the people who have questioned me on  
2 it in the past have seldom read that.

3 The point I am trying to make is that  
4 these issues, if we say, it's a right to do all these  
5 new things, each time a new variable is added to the  
6 system that right requires new money. That new money  
7 drives the system as we have today with a huge  
8 government debt. We have a commitment from the present  
9 government to social programs that cost a lot of money  
10 to maintain, and each time those social programs are  
11 put into place the government turns around and says:  
12 Now, what is going to supply that? Where do we get  
13 that from?

14 And the current treasurer, interestingly  
15 enough, was in Wawa some years ago as part of a  
16 northern single-industry town survey panel that the  
17 province put together and I appeared before that and I  
18 stressed then that we have got to find ways to generate  
19 money internally in these small towns. We have got to  
20 reduce the overall cost, and obviously that was not a  
21 view that was popular.

22 But the reality is that we have got a  
23 system that is well on the way towards bankruptcy and  
24 it is fuelled by the social demands of every group to  
25 say: Boy, we are worth a great deal.



1                   The amount of money that I live on is  
2                   very little compared to anyone in this room, and I am  
3                   not making a judgment on you, I am just saying that  
4                   every individual has aspirations for what they want to  
5                   achieve and that has got to be funded, and if you  
6                   increase their aspirations, you increase the cost.

7                   MR. MARTEL: But at this hearing, Mr.  
8                   Baxter, we've heard it over and over again. You're  
9                   suggesting, for example - and I've questioned a number  
10                  of witnesses and most of them are opposed to government  
11                  spending or increasing government spending, and then  
12                  they put their dib in.

13                  You've got someone like yourself who says  
14                  we need a biologist, small wildlife biologist in each  
15                  area.

16                  MR. CASSIDY: Small biologist.

17                  MR. MARTEL: Not a small one.

18                  MR. BAXTER: A very short person, yes.

19                  MR. MARTEL: I meant -- and then you have  
20                  people who are here representing the tree growers--

21                  MR. BAXTER: Sure.

22                  MR. MARTEL: --and they want more  
23                  funding, and as you go down - and I think I've raised  
24                  this issue at a number of these hearings - everybody is  
25                  proposing cuts except where their \*\*\*bet and wire is,

1       where their pet peeve is, where their hobby horse is.

2               I'm not saying this to be facetious  
3       either, because what's determined for my colleague and  
4       I is to decide all of the factors that you're going to  
5       maybe write up in a final document and, as I say, the  
6       worrisome part is that everybody wants somebody else to  
7       cut back except them.

8               I don't know how you deal with that,  
9       quite frankly.

10              MR. BAXTER: Are you aware of a  
11       consistent claim I have made as to where that money  
12       should come from? It's in my book, it's also in my  
13       submission here as a witness statement.

14              I believe for years that the regional  
15       offices drain money within the Ministry of Natural  
16       Resources and there's no place for them, they also  
17       cause an extra level of dispute and interception of all  
18       points.

19              Now, maybe you feel that's an issue that  
20       can't be addressed really but that, in reality, is  
21       where I believe the money is going.

22              MR. MARTEL: Yes. But you see, I  
23       listened to a big convention last week and they told me  
24       that the drain was the Medicare system and that what we  
25       had to do was put a fee on all services. I raised the

1 question throughout my life is: Do patients order the  
2 tests that are the biggest factor in the escalating  
3 costs in OHIP.

4 I mean everybody can, you can find all of  
5 these things and make judgments as to where all of  
6 these things should be cut, who should be be cut, why  
7 it should be cut. It's not quite as easy when you're  
8 forced into the position of doing the balancing act  
9 yourself.

10 MR. BAXTER: Sure.

11 MR. MARTEL: That poses a problem. And,  
12 as I say, just in this hearing we've had it over and  
13 over again, where we should expand, where we should  
14 cut. I mean, everybody's got his position.

15 MR. BAXTER: I'm of the opinion that I  
16 know won't be shared, but I'm of the opinion that  
17 people could afford to live on less than they're  
18 getting, and consequently I realize that you have to  
19 make those decisions, and if you think I'm off down the  
20 garden path, that's is fine.

21 MR. MARTEL: At this point I'm not making  
22 any decision of who's off the garden path, I'm simply  
23 suggesting that over and over again we've heard the  
24 same sort of theme, cut here to put in the area I  
25 favour, and that becomes a difficulty.

1                   That's why I question about: Can we, for  
2                   example -- the last question I raised with respect to  
3                   it, it seems to me that you're looking for the research  
4                   to establish why birds occupy certain areas. I just  
5                   wonder why we have to -- if we're doing that, and once  
6                   we establish that, can one not apply that to other  
7                   areas. As I understand, that's the way most research  
8                   goes, you know, you take some theory and you start to  
9                   develop it and you work through it and then you  
10                  eventually say: Well, that's going to apply pretty  
11                  well uniformly. I think traditionally that's the way  
12                  mankind has advanced, but you're saying that's  
13                  insufficient, you see, that's what worries me, and then  
14                  becomes a case: Well, how many can you afford.  
15                  Because, you see, we've been told there is not enough  
16                  foresters to make sure that--

17                         MR. BAXTER: I have heard that.

18                         MR. MARTEL: --that one compares what  
19                   goes on in Ontario to Europe where they have one  
20                   forester for, what is it, 10 to 15,000 hectares or  
21                   something like that, as opposed to Ontario.

22                         And so I say: How do you do that  
23                   balancing act? There's got to be a way. I mean, would  
24                   you be happy, for example, if we said: Yes, we are  
25                   going to do this sort of a study, we are going to order



1       it, but it's only going to be in certain areas and then  
2       what you learn from it you apply.

3                       But you're saying: No, you want it for  
4       every district. And I'm just not sure realistically in  
5       the real world where it all comes from. You can cut a  
6       few people out at the regional office--

7                       MR. BAXTER: My system doesn't cut people  
8       out if you look at it. I encourage you to read that  
9       discussion of movement of money and funds in Chapter 17  
10      of that book and Chapter 16. I have given some  
11      considerable thought to how this province operates.

12                      And just to make a point, again, it's  
13      fine and dandy to say let's do representative studies,  
14      but I know that the data I have differs substantially  
15      from some of the data in print. So, therefore, if you  
16      live in one area and you work in one area you acquire  
17      certain conclusions on the basis of the data you obtain  
18      in that area. You need to have other comparative  
19      studies of the same type going on so you can be  
20      forewarned of what you're missing by the particular  
21      circumstances in your own area. You need to have that.

22                      MR. CASSIDY: Well, to finish off on this  
23      point, before I go to the last part of my  
24      cross-examination, I suggest, Mr. Baxter, that there  
25      are people who may view the participation of women in

1 the workforce as not a cost but, in fact, a benefit and  
2 who would disagree with the portion I just read.

3 But I want to move on to the final issue  
4 of my cross-examination and that is page 18 of your  
5 witness statement. On page 18 you state - and this  
6 would be Exhibit 1908B - in the second full paragraph,  
7 about the middle of that paragraph, you state:

8 "The use of herbicides to remove  
9 competing vegetation, therefore, will  
10 drastically reduce bird populations by 30  
11 to 70 per cent in some sites just due to  
12 elimination of nesting habitat."

13 Are you suggesting that herbicide  
14 treatments are applied in this province that totally  
15 and permanently eliminate or remove competing  
16 vegetation?

17 MR. BAXTER: No, I'm suggesting that the  
18 stated intent of much of the modern forestry goal is to  
19 use repeated applications, if necessary, to maintain  
20 control for a number of years prior to the free to grow  
21 status, and I believe George Merrick dealt with that  
22 issue as well in his statement, presented a number of  
23 alternatives that he recommended.

24 MR. CASSIDY: But that does not mean  
25 completely removing competing vegetation.

1 MR. BAXTER: Sorry?

2 MR. CASSIDY: The goal of herbicide  
3 treatments in this province, as I understand it, and in  
4 the context of this hearing and as evidence we have  
5 received, is that herbicide treatments are not aimed to  
6 remove competing vegetation, they are aimed to suppress  
7 it, but not remove it.

8 And I have suggested that you've  
9 erroneously stated the goal of herbicide treatments --

10 MR. BAXTER: No, I don't believe I have.  
11 It is the goal to remove it, because that's what  
12 happens, you spray for grasses or for broad leaf  
13 vegetation and you remove it, it dies back.

14 MR. CASSIDY: Permanently.

15 MR. BAXTER: No, it dies back for a  
16 number of years. I answered this in one of your  
17 interrogatories.

18 MR. CASSIDY: So it's not -- it's died  
19 back it's not permanently removed; correct?

20 MR. BAXTER: No. Then the question is:  
21 Do you do it again or not, that's really the  
22 recommendation of many of the timber management plans  
23 is to use it repeatedly, if necessary, according to the  
24 discretion of the forester involved and people involved  
25 in a particular site.

1                   MR. CASSIDY: To allow a period of time  
2 for the canopy to get above the competing vegetation?

3                   MR. BAXTER: Correct.

4                   MR. CASSIDY: But it's never permanently  
5 removed as an object, complete defoliation for  
6 permanent removal?

7                   MR. BAXTER: Well, it's not a permanent,  
8 but it makes a major change for a number of years in  
9 some sites and if you use repeated application you'll  
10 get that effect over a long term, you'll get the same  
11 net result.

12                   MR. CASSIDY: Well, I suggest to you,  
13 sir, it's not the same net result if it's never  
14 permanently removed and I suggest to you that in fact  
15 you're talking about temporary situations but you've  
16 attempted to portray it as permanent, which is an  
17 overstatement.

18                   MR. BAXTER: No, I disagree. My whole  
19 point in this is that if you exercise a treatment  
20 regime and you intend to repeat that treatment regime  
21 or some variation on it, you will achieve the net  
22 result that you have of changing, from the standpoint  
23 of animal populations in that area, a loss of their  
24 habitat during the course of time of your treatments or  
25 repeated treatments.



1                   So fine, if you only do it once it's no  
2                   big deal, but if you do it repeatedly, because of the  
3                   problems in trying to get this free to grow status  
4                   achieved, then you have achieved a change in the site  
5                   over a period of time that's substantial maybe if you  
6                   use repeated treatments.

7                   Now, where this fit into my witness  
8                   statement was the point about the net result in terms  
9                   of foraging benefits of birds to those trees. The  
10                  birds are nesting in the site in grasses or shrubs --  
11                  if birds are nesting in the site in grasses and shrubs  
12                  and you spray to remove that vegetation you  
13                  subsequently have removed the growing effect over those  
14                  years, you probably will affect shoot growth on those  
15                  trees, and that's an issue I'm working on now without  
16                  the herbicide issue involved.

17                  MR. CASSIDY: That is it. Thank you very  
18                  much, Madam Chair.

19                  MADAM CHAIR: Thank you, Mr. Cassidy.

20                  One follow-up question, Mr. Baxter. Is  
21                  it your view that the more common practice is for a  
22                  more single herbicide spray on one site or repeated  
23                  sprays?

24                  MR. BAXTER: It's my impression that once  
25                  is used most of the time now. If I may comment, if I

1       may, about this issue.

2                   I am surprised that Mr. Cassidy hasn't  
3       pursued the issue of monocultures which he said he  
4       would cross-examine on earlier in his written list of  
5       statement of issues.

6                   I phoned Wawa District the other day to  
7       follow this up and it's my understanding that there are  
8       a number of sites in which mixed forests were growing,  
9       they were harvested, they were planted to black spruce  
10      or jack pine on the basis of what they felt was the  
11      best prescription for the area.

12                   Subsequently some of them were sprayed as  
13      funds and discretion permitted. In some cases they  
14      would probably be willing on the basis of their  
15      available funds to, as I was told over the phone, to  
16      accept a lower level of productivity because there  
17      wasn't a means to continue to treating the site.

18                   But certainly on an individual basis, my  
19      understanding is that there's certainly a goal on the  
20      part of some Ministry people to, if the money is  
21      available, to do repeated treatments.

22                   And so, yes, right now I think maybe only  
23      some sites are sprayed occasionally, but the goal might  
24      be to increase that.

25                   MADAM CHAIR: Thank you.

1 Ms. Blastorah?

2 MS. BLASTORAH: If I may just take back  
3 the microphone from Mr. Baxter here. thank you.

4 Just one or two follow-up questions from  
5 Mr. Cassidy's before I pursue the questions I had  
6 planned to ask Mr. Baxter.

7 Just following up on the herbicide  
8 issues, do you have a sense or any information as to  
9 the overall extent of the area of the undertaking that  
10 is treated with herbicide in any one year?

11 MR. BAXTER: No, but I'm sure it's very  
12 small.

13 MS. BLASTORAH: And you indicated, I  
14 think I got the note right, you said in response to Mr.  
15 Cassidy that a number of timber management plans call  
16 for repeated herbicide application.

17 Now, I was just wondering whether you  
18 were thinking of specific plans, because the evidence  
19 before the Board - and I think you just indicated this  
20 yourself - is that generally a stand would not be  
21 treated more than twice in its lifetime.

22 Were you thinking of specific timber  
23 management plans?

24 MR. BAXTER: No, but my experience in  
25 this issue is mostly in Wawa District and when I tried

1 to get a straight answer actually out of the district  
2 yesterday what I got was a request to put it in writing  
3 and they went all around the block not wanting to  
4 specify how many sites might or might not be involved.

5 So my knowledge on the subject is  
6 limited. I was after more specific information and I  
7 haven't received it.

8 MS. BLASTORAH: And I take it you didn't  
9 go in and look at any maps that were available in Wawa  
10 District in relation to past herbicide treatments?

11 MR. BAXTER: Oh, years ago yes, but I  
12 haven't had the time in recent years to do that, so  
13 I've forgotten. I needed to be brought up to date.

14 MS. BLASTORAH: And you indicated in  
15 relation to the Wawa example you gave that you asked  
16 about a mixed wood plantation, or I think you said it  
17 was indicated to you that a mixed wood plantation had  
18 been planted to black spruce or jack pine; did I  
19 understand you correctly?

20 MR. BAXTER: Mm-hmm.

21 MS. BLASTORAH: Do you know what the  
22 conifer content was in that mixed wood stand?

23 MR. BAXTER: No, but there are several  
24 sites in question, not one.

25 MS. BLASTORAH: And so you don't know the



1 extent to which conifer originally covered those sites?

2 MR. BAXTER: No. As I said, I asked for  
3 specifics and was told to put it in writing. So I  
4 think at this point it's a moot point. The Board can  
5 pursue it, as it feels necessary.

6 MS. BLASTORAH: Just one more question in  
7 relation to that then. Do you know in relation to the  
8 sites you enquired about whether the objective, as  
9 stated in the timber management plan, was to ultimately  
10 regenerate those stands to some component of deciduous  
11 as well as black spruce and conifer, or was the stated  
12 objective to regenerate those stands to exclusively  
13 jack pine or black spruce?

14 MR. BAXTER: Okay. I'll repeat what I  
15 was told on the phone from the district planner who  
16 subsequently referred me to the district manager.

17 The district planner said that there were  
18 number of sites on which the goal would have been to  
19 grow black spruce or jack pine, if possible, but due to  
20 decisions about the viability of productivity on the  
21 site or else in terms of money available, they're  
22 prepared to accept a lower level of productivity which  
23 included deciduous competition.

24 MS. BLASTORAH: So notwithstanding the  
25 fact those areas were planted to conifer either black

1 spruce or jack pine, you would expect the ultimate  
2 result would be some deciduous component?

3 MR. BAXTER: Oh yeah.

4 MS. BLASTORAH: So the areas would be  
5 returned to mixed wood stands?

6 MR. BAXTER: Yes, but not the original  
7 mixed wood, which would have been white spruce or  
8 balsam fir, this is black spruce or jack pine that was  
9 planted.

10 MS. BLASTORAH: Thank you. Now, in  
11 relation again to a question from Mr. Cassidy he was  
12 asking you about your comment in relation to forest  
13 clearing and how that was different than forestry  
14 practices which removed the forest cover for some  
15 period of time.

16 And if I understood you correctly you  
17 indicated that you had a concern about the time lag in  
18 regenerating those sites; is that correct?

19 MR. BAXTER: Mm-hmm.

20 MS. BLASTORAH: Now, you'd agree with me  
21 that that temporal recovery or that temporal aspect is  
22 also a factor in regeneration after a wild fire?

23 MR. BAXTER: Sure.

24 MS. BLASTORAH: And, in fact, the boreal  
25 species that we have in the boreal forest have evolved

1 with that type of disturbance?

2 MR. BAXTER: Yeah. Two points though:

3 Land area is a factor, fires burn unevenly, they often  
4 leave cover of various types left standing in various  
5 states of health so we cannot say that logging and fire  
6 achieve the same end, and certainly I believe this has  
7 been dealt with by other people in the hearing process,  
8 so...

9 MS. BLASTORAH: And you don't have any  
10 particular expertise in fire ecology; correct?

11 MR. BAXTER: No.

12 MS. BLASTORAH: And you are aware, as you  
13 indicated, that other experts in the field have given  
14 evidence to the Board about the similarity between fire  
15 effects and forest practices.

16 MR. BAXTER: And I'm also aware that some  
17 have also disputed that, so there's both sides of the  
18 coin.

19 MS. BLASTORAH: And I take it then, given  
20 your lack of specific expertise in that field, you  
21 would defer to the opinions of experts in the field?

22 MR. BAXTER: Certainly.

23 MS. BLASTORAH: Thank you. You also made  
24 a comment during the cross-examination by Mr. Cassidy  
25 about there being evidence of increased insect

1 infestation as a result of greater heat in cut-over  
2 areas.

3 MR. BAXTER: Mm-hmm.

4 MS. BLASTORAH: Would you agree with me  
5 that that could also be a factor where a large wild  
6 fire has gone through and the area has been opened?

7 MR. BAXTER: Yes. Again, we have to go  
8 into individual sites and if there's large amounts of  
9 area at stake, or are we talking about small amounts of  
10 area? The effects would be different, site specific.

11 MS. BLASTORAH: In relation to your  
12 comments on inventory - I think it was Mr. Martel that  
13 was questioning you about this - if I understood you  
14 correctly, you indicated that what you were concerned  
15 about was not so much exact numbers of species, but  
16 determining the mechanisms which allow those species to  
17 survive; correct?

18 MR. BAXTER: Mm-hmm.

19 MS. BLASTORAH: Would you agree with me  
20 that factors other than habitat can affect survival,  
21 for instance, predation?

22 MR. BAXTER: Yes, I think it can, but we  
23 also have -- the important point to realize is there is  
24 stability in populations, which I refer to from my own  
25 studies, that the sites on which I studied intensively

1 the populations fluctuated only slightly from year to  
2 year.

3 MS. BLASTORAH: Would you agree with me  
4 that there are a number of factors, that you would  
5 expect to find a number of factors?

6 MR. BAXTER: There are a number of  
7 factors, but these factors are in balance and the  
8 balance changes after you carry out logging.

9 MS. BLASTORAH: Would you agree with me  
10 that strict inventory information would not answer the  
11 question about which mechanisms are essential to  
12 species survival?

13 MR. BAXTER: Yes, but I also pointed out  
14 again that I indicated a mechanism in which you use  
15 inventory as a foundation which you constantly use from  
16 which you know where to begin your more serious studies  
17 and you use that as a constant reference.

18 MS. BLASTORAH: And it would be those  
19 other more designed research studies that would answer  
20 those questions you're concerned about?

21 MR. BAXTER: Right.

22 MS. BLASTORAH: Okay. Turning now to the  
23 interrogatories you provided in response, or the  
24 interrogatory answers you provided in response to the  
25 Ministry of Natural Resources, perhaps I can just file



1       that package of interrogatory answers at this time.

2                   Do you have those with you, Mr. Baxter?

3       Mr. McNicol will provide the Board with copies and I  
4       have one extra set here in case anyone doesn't have  
5       them.

6                   MADAM CHAIR: We have a copy. Are these  
7       all the interrogatories?

8                   MS. BLASTORAH: These are all of the  
9       interrogatories asked by the Ministry of Natural  
10      Resources. I have just put our original question and  
11      answer together. In some cases Mr. Baxter didn't  
12      retype the entire question, so we've just done that.

13                  MADAM CHAIR: This material will be given  
14      Exhibit 1909. Do you know how many pages are in this  
15      package, Ms. Blastorah?

16                  MS. BLASTORAH: I'm afraid I didn't count  
17      them. I will just do that now, Mrs. Koven.

18                  There are 22 pages and it's the complete  
19      package of interrogatory questions and answers asked by  
20      the Ministry of Natural Resources and the answers  
21      provided by Mr. Baxter. There are 29 questions in  
22      total.

23                  MADAM CHAIR: Thank you.

24      ---EXHIBIT NO. 1909: MNR interrogatory questions and  
25                               answers thereto provided by Mr.  
                              Baxter.

1 MS. BLASTORAH: You have that in front of  
2 you, Mr. Baxter?

3 Could you turn to question 22. I just  
4 wanted to follow up one point that you made in your  
5 oral evidence in relation to this interrogatory.

6 You indicated in referring to this that  
7 the Ministry of Natural Resources asked you which  
8 species do not respond to change in the forest, and I  
9 was a little confused by that because the actual  
10 question was: Which species in Ontario are found only  
11 in the habitat type you described, which is overmature  
12 forests in which small openings have been created by  
13 the death and subsequent collapse of large oak trees.

14 Now, in my mind I certainly associated that  
15 with overmature forest, the description of the forest  
16 type that you gave; is that fair?

17 MR. BAXTER: Let me just see, first off,  
18 the northwestern, which I thought I had --

19 MS. BLASTORAH: Perhaps I can provide you  
20 with a copy of the interrogatories which have the  
21 question with the answer.

22 Now, I was a little confused by your  
23 answer because it is my understanding that the wood  
24 thrush and the Swainson's thrush are found in habitat  
25 types other than overmature forest in which small

1 openings have been created by the death and subsequent  
2 collapse of large oak trees, and the evidence before  
3 the Board in relation to those particular species are  
4 contained in the Baker paper which was filed as part of  
5 the Ministry of Natural Resources Panel 10.

6 Do you disagree with the conclusions  
7 stated in the literature cited in that paper?

8 MR. BAXTER: Well, if you had asked me  
9 this question with respect to a particular paper  
10 instead of go through those papers, I can certainly say  
11 that, yes, I probably do disagree.

12 I have done a lot of intensive work on  
13 thrushes. That is when my work began, and the wood  
14 thrush seldom uses complete second growth by itself, it  
15 usually requires a second growth within a forest  
16 understorey.

17 In almost all the sites that exist when a  
18 wood thrush occurs will also be small amounts of  
19 clearing, and if you follow the bird through the site  
20 you will find the nest site has a lot to do with the  
21 location of the canopy in relationship to the  
22 understorey.

23 As for Swainson's thrush, the Swainson's  
24 thrush, as I said here, is a bird of dark forest  
25 interiors. Whether or not it is always the conifer is

1       debatable, unless they occur in aspen stands that are  
2       dense.

3                       And Dr. Erskine, formerly of the Canadian  
4       Wildlife Service, did a number of works out west. The  
5       Birds of Royal Canada is the publication, I believe it  
6       is around 1977 or '79. He found Swainson's thrush  
7       inhabit areas other than what I found them in. But,  
8       again, the extensive undergrowth and the shady  
9       conditions are a system of character of the resting  
10      place of the Swainson's thrush.

11                     MS. BLASTORAH: So you do agree then that  
12      Swainson's thrush can be found in habitat other than  
13      overmature conifer?

14                     MR. BAXTER: Yes. If you use the word  
15      overmature -- see, let's go back to the question here.  
16      I did not refer to conifers in this and certainly in  
17      this area of the undertaking Swainson's thrushes do not  
18      occur in pure or dense aspen stands, not from my  
19      experience.

20                     MS. BLASTORAH: I would like to turn now  
21      to another of the interrogatories which deals with the  
22      Robbins paper that you refer to in your evidence and  
23      perhaps I can file the 1979 Robbins' article that you  
24      cite in your paper.

25                     This is a paper entitled: Effect of

1 Forest Fragmentation on Birds and Bird Population. It  
2 is by Chandler A. Robbins. It is a 1979 USDA Forest  
3 Service General Technical Report No. 51 from  
4 proceedings of the workshop on management of  
5 northcentral and northeastern forests for non-game  
6 birds, and the date of those proceedings were January  
7 23rd to 25th, 1979.

8 The particular photocopy of the article  
9 that I have filed is nine pages in length -- I beg your  
10 pardon, eight pages.

11 Do you have a copy of that with you?  
12 And, again, I have extra copies if any of the other  
13 parties present would like a copy of that.

14 MADAM CHAIR: Do you want an exhibit  
15 number for that, Ms. Blastorah?

16 MS. BLASTORAH: Yes, please. I do not  
17 believe this one has been marked an exhibit in the  
18 proceeding.

19 MADAM CHAIR: That will be Exhibit 1910.

20 MS. BLASTORAH: Thank you.

21 ---EXHIBIT NO. 1910: Eight-page paper entitled:  
22 Effect of Forest Fragmentation on  
23 Bird and Bird Populations by  
Chandler A. Robbins.

24 MS. BLASTORAH: Now, in answer to the  
25 Ministry of Natural Resources' Interrogatory No. 29,



1       you indicated that Robbins considered various cut block  
2       sizes, one of which was 24 hectares. I take it that  
3       this was through Robbins' article that you were  
4       referring to.

5                       Now I, had a little trouble finding that.  
6       I was just wondering if you could point me to the place  
7       in the article where Robbin says that. I could not  
8       locate it myself and I just wanted to make sure I was  
9       not missing it.

10                      MR. BAXTER: Well, I may have trouble  
11       myself. I have had a number of conversations with him  
12       about this paper in the past and the 24-hectare issue  
13       has come up several times. So.

14                      If you would like to leave me just some  
15       time to work my way through it, then I will find it or  
16       see if it is here or not. So it may not be.

17                      MS. BLASTORAH: Perhaps I can just leave  
18       that then, and if you are able to, you can come back  
19       and advise us where in the article he states that.

20                      Now, you have done no independent  
21       research yourself or you have not referred to any other  
22       research, so I take it that you are looking at your  
23       work.

24                      Have you done any independent research to  
25       establish why you say a hundred hectares might be more

1       preferable in Ontario?

2                   MR. BAXTER: Yes, that comes prior to my  
3       own research and by comparing with comments of  
4       literature by Robbins and his group of associates.

5                   There are fairly large tracts of land  
6       involved in his area and still many species did not  
7       stay within the area. He had a property of 40 hectares  
8       which I obtained by looking at page 200, his own  
9       property was 40 hectares in size.

10                  MS. BLASTORAH: His was one of the study  
11       blocks that he refers to?

12                  MR. BAXTER: This refers to his own  
13       property. The study revolved around his own property  
14       to begin with and what I did is, I went back and tried  
15       to determine what kind of land base the birds were  
16       using in Lake Superior Park, how far they moved, how  
17       well you keep track of them, and then try to determine  
18       if there is some maximum area that they need.

19                  And I honestly do not know, as I  
20       indicated in here, exactly how much they use. All I  
21       know is it seems to be large. There seems to be a  
22       distinctive sense that they need more area than just  
23       the area they use for nesting and foraging.

24                  So what I am saying in this, is even if  
25       you dispute the actual land area involved, we somehow

1       need to set aside lands so that we can find this out  
2       subsequently. If we make our clearcut blocks larger  
3       and our areas of reserve smaller, then we probably will  
4       lose many species before we understand what it is that  
5       they are dependent upon.

6                   MS. BLASTORAH: Now, just to look at what  
7       you have told me there then, as I understand it, what  
8       you are actually talking about is areas of forest  
9       required by bird species, not size of cut; correct,  
10      that is certainly what I understand Robbins is talking  
11      about.

12                  MR. BAXTER: Well there is two sides to  
13      the same coin. If the birds require a certain amount  
14      of area, which we are not sure about - and he speaks of  
15      the different size of the parks - then set aside land  
16      for them to live in, you figure out how much these  
17      species depends upon and how it affects the population.

18                  Now, if you turn the coin around and ask  
19      what does that do to the population if you have  
20      clearcuts, I have relied upon a lot of readings from  
21      the literature as to how the population of birds change  
22      if you clearcut, and certainly it has to do with -- it  
23      seems to have to do with food supply.

24                  How the food supply is affected and how  
25      to protect it, so they have protection for the next

1 sites during the breeding sites. And I say there is an  
2 awful lot of unknowns there.

3 So as I said in the last statement of my  
4 response there, I said: Yes, a hundred hectares is a  
5 basis for self evaluation, and if you dispute that,  
6 fine, but let us have some kind of a land base that is  
7 going to protect them so we can figure out what it is.

8 MS. BLASTORAH: So your concern -- well,  
9 perhaps to back up a step. Robbins' concern, you would  
10 agree, is the size of the area left for birds to  
11 inhabit rather than the cut block size in this paper?

12 MR. BAXTER: Right. And he is raising  
13 the same question that I am raising, what sizes are  
14 really at stake, how do you determine that and how do  
15 you maintain those populations?

16 MS. BLASTORAH: So it is the size of  
17 forest left rather than a cut block size which is  
18 really at issue?

19 MR. BAXTER: Yes. May I just respond to  
20 that?

21 There is a larger volume of work done by  
22 Robbins since then. A fairly large monograph in which  
23 he refers to major papers with himself and associates  
24 on the forest fragmentation, and if we have a minute  
25 before we leave I think I will find that reference too.

1 MS. BLASTORAH: Is that his 1988 paper in  
2 Managing Northcentral Forest For Non-timber Values?

3 MR. BAXTER: No.

4 MS. BLASTORAH: Well, perhaps what we can  
5 do is, I will move through the rest of my questions and  
6 if there is a particular point that you want to bring  
7 to the Board's attention on that paper, then we can  
8 come back to it at the end.

9 MR. BAXTER: Okay.

10 MS. BLASTORAH: Staying with the 1979  
11 paper, you will agree that this paper deals with  
12 relatively small woodlots in the eastern deciduous  
13 forests of the U.S., and when I say relatively, I mean  
14 relative to the forest covering Northern Ontario?

15 MR. BAXTER: Sure.

16 MS. BLASTORAH: And the impacts that he  
17 has given in that 1979 paper are basically urban  
18 development and deforestation. For instance, he talks  
19 about the construction of super highways and things  
20 like that.

21 So this paper is not specifically dealing  
22 with the impacts of forestry in the sense that we have  
23 it in Ontario?

24 MR. BAXTER: It deals with the impacts of  
25 land clearing and that is really important because that



1 is one thing that cannot be disputed, and I am sure, is  
2 the fact that land clearing has been spreading north  
3 and that the amount of cleared land as been gradually  
4 increasing north of us.

5 So if we have a policy in place or a  
6 program in place that increases the net amount of land  
7 cleared, regardless of by what method, we are going to  
8 repeat the experience that they have there.

9 MS. BLASTORAH: And you would acknowledge  
10 that there is a difference between permanent land  
11 clearing and temporary land clearing such as the type  
12 that you have, a harvest operation and regeneration,  
13 that exists?

14 MR. BAXTER: Yes, only if we talk about  
15 what time frames in particular are involved.

16 MS. BLASTORAH: And we have already  
17 discussed that in the context of fire as well.

18 MR. BAXTER: Yes.

19 MS. BLASTORAH: I would also like to turn  
20 now to a 1988 paper by the same Mr. Robbins. Do you  
21 have a copy of that paper with you?

22 MR. BAXTER: No, I do not.

23 MS. BLASTORAH: Okay. I will provide you  
24 with a copy. This is already marked, Madam Chair. It  
25 was marked previously in this hearing as Exhibit 785.

1                   Now, are you familiar with this paper by  
2       Mr. Robbins?

3                   MR. BAXTER:  No, I am not.

4                   MS. BLASTORAH:  If you would like to take  
5       a minute to read through the abstract, I think you will  
6       agree that, again, this is a paper dealing with  
7       fragmentation of forests in eastern deciduous forests  
8       of the U.S.

9                   MR. BAXTER:  Mm-hmm okay.

10                  MS. BLASTORAH:  Now, you've not seen this  
11       paper before?

12                  MR. BAXTER:  No, I haven't.

13                  MS. BLASTORAH:  In that case I won't go  
14       into a great deal of detail about it, I would just like  
15       to refer you to a couple of points in here.

16                  If you could turn to page 63 of this  
17       article.  Would you agree with the comment here --  
18       you'll see that in the context of this article Mr.  
19       Robbins has indicated in the last full paragraph on the  
20       page that:

21                  "Protection, in most instances, does not  
22       mean withdrawal from other uses."

23                  I take it from your comments about  
24       setting aside 30 per cent of every district for  
25       permanent protection, that you would not agree with

1       that statement by Mr. Robbins?

2                   MR. BAXTER:  No, I don't, I don't think.  
3       I have to read the whole paper through more carefully  
4       to see the context in which he's raising this, but  
5       there is a provision in my approach to this that would  
6       fit into the 70 per cent of the land base I talked  
7       about that would agree with this.

8                   But, in my opinion, we have a system  
9       that's maintained itself by a variety of complex  
10      processes within the forest, as distinct from systems  
11      that occur as a result of logging.

12                  So if I were going to sit down with this  
13      argument, I would sit down and write a letter back to  
14      him and ask him to clarify.  I would think in the  
15      context of this workshop, he's probably attempting to  
16      find a compromise that might maintain some of the  
17      populations.

18                  MS. BLASTORAH:  Okay.  Perhaps since  
19      you're not familiar with this article then we can go  
20      back to the 1979 article by Robbins.  I don't want to  
21      be unfair and ask you questions on an article that you  
22      haven't had an opportunity to read.

23                  Would you turn to page 210 of Exhibit  
24      1910, please, the 1979 article.  Do you have that?

25                  MR. BAXTER:  Yes, I do.

1 MS. BLASTORAH: Would you look at point 6  
2 in the lefthand column there.

3 MR. BAXTER: Yes.

4 MS. BLASTORAH: Okay. Do you agree with  
5 the comment there by Mr. Robbins where he says --

6 MADAM CHAIR: What page are we on, sorry,  
7 Ms. Blastorah?

8 MS. BLASTORAH: I'm sorry. It's page  
9 210, which is the second last page of the photocopy,  
10 and you'll see there are a number of enumerated points  
11 on the lefthand side, point No. 6.

12 Here Robbins states that:

13 "In areas where mature forest is limited,  
14 one should consider preserving one  
15 or more strategically located mature  
16 tracts to serve as sources of avian  
17 repopulation."

18 Would you agree with me that this is not  
19 the situation which currently obtains in Ontario, we  
20 are not dealing with a situation where mature forest is  
21 limited?

22 MR. BAXTER: Yes, I have to agree, at the  
23 present time that's not the case, but I think we are  
24 moving in that direction.

25 MS. BLASTORAH: And you would agree with

1 me that it's in a context where there is a limitation  
2 on the amount of mature forest available that Robbins  
3 recommends setting aside strategically located areas of  
4 old forest?

5 MR. BAXTER: No. I have talked to him  
6 about this and I think that what he's saying is that --  
7 he was attempting in 1979 to try to bring some  
8 solutions to a solution that had already gone too far  
9 and try to get some recovery of it.

10 The reality of is the birds that don't  
11 breed there that used to breed there are coming north.  
12 So we have a circumstance which is maintaining the  
13 viability in some senses of these populations. We must  
14 assume that's the case unless we can prove for sure  
15 it's not, because the populations are declining in his  
16 area dramatically.

17 MS. BLASTORAH: So you'd agree with me  
18 then that the context in which Mr. Robbins is dealing  
19 in his 1979 work then is very different than Ontario in  
20 that he is already dealing with a fragmented forest?

21 MR. BAXTER: Yes. And the point is that  
22 I believe that our present policies are heading in that  
23 direction.

24 MS. BLASTORAH: And it's in the context  
25 of that already fragmented forest that he indicates in



1 his 1988 article that it is not necessary to set aside  
2 currently protected areas?

3 MR. BAXTER: This is back at page 63  
4 again?

5 MS. BLASTORAH: Back to page 63.

6 That notwithstanding the fact he is  
7 dealing with an already fragmented forest in the United  
8 States in urban areas, he still says:

9 "The protection in most instances does  
10 not mean withdrawal from other uses."

11 MR. BAXTER: Well, I think he's made an  
12 error in judgment there and I think it's because he  
13 hasn't taken into account that much of the populations  
14 that are still occurring in much of the States,  
15 especially in Minnesota, are occurring in the context  
16 of other contiguous forest properties still in  
17 existence.

18 MS. BLASTORAH: So you disagree with that  
19 comment by Robbins?

20 MR. BAXTER: I think he hasn't considered  
21 all the possibilities.

22 MS. BLASTORAH: Okay. Coming back to  
23 another comment that you made, and again I think it was  
24 in response to some questioning by Mr. Martel about the  
25 extent to which you feel inventory work has to be done

1 everywhere and the ability to do that -- well, perhaps  
2 it was actually in questioning from Mr. Cassidy in  
3 relation to the transcript excerpt from Mr. Maser's  
4 evidence.

5 Mr. Martel asked you whether you felt  
6 that that had to be -- whether it was possible to do  
7 that everywhere, as I understood him, and you indicated  
8 that you don't necessarily have to see birds in order  
9 to be aware of their presence, you can inventory them  
10 through listening for their songs and so on.

11 Now, you indicated that it was possible  
12 to do that for birds.. However, in your comments in  
13 both your witness statement and your evidence here  
14 before the Board you have not limited your  
15 recommendations for inventory to birds, in fact, you  
16 indicated again this morning that you felt your  
17 recommendation should apply to all living organisms.

18 Would you agree with me that  
19 notwithstanding the fact you may feel it's relatively  
20 easy to inventory birds, it would not be the case for  
21 other species such as microorganisms, fungi, some  
22 plants, it would be a much more difficult task?

23 MR. BAXTER: Okay. Microorganisms would  
24 be a major undertaking. The plant world, including the  
25 fungi, would not necessarily be that difficult a task,

1       they don't exactly run away on you, so as long as you  
2       get to the sites and survey them throughout the seasons  
3       you will turn up some fairly consistent data.

4                   MS. BLASTORAH: Okay. I would like to  
5       file one more article then, just following up on that  
6       point. This is an excerpt from a book by Malcolm  
7       Hunter Jr. which is entitled: Wildlife Forests and  
8       Forestry, Principles of Managing Forests for Biological  
9       Diversity, and this is a book produced by the Wildlife  
10      Department, College of Forest Resources of the  
11      University of Maine in Orno, Maine, published by  
12      Prentiss Hall and I'm afraid I don't have the book here  
13      so I don't have the date of publication, but I  
14      believe --

15                   MR. BAXTER: It was '89.

16                   MS. BLASTORAH: '89. So you're familiar  
17      with this book?

18                   MR. BAXTER: Yeah.

19                   MS. BLASTORAH: Would you -- there are  
20      three pages in this excerpt. It's the title page of  
21      the book and pages 8 and 9 from the text.

22                   If you turn to page 9 of the excerpt,  
23      which is the third page into the photocopied excerpt,  
24      you'll see there that in the first full paragraph Mr.  
25      Hunter says:

1 "As far as I know no one has ever  
2 attempted to list all species found in a  
3 forest."

4 And further down the paragraph he says:

5 "To list all the species for a site  
6 would probably involve more than just  
7 collecting thousands of creatures and  
8 then spending years in a lab with  
9 a microscope, often it would entail  
10 describing species previously unknown to  
11 science. Entomologists are constantly  
12 discovering new insect species, about 20  
13 per day."

14 And further down the paragraph one of the underlined  
15 portions he says:

16 "The problem of undescribed species is  
17 likely to be with us indefinitely  
18 especially in tropical forests."  
19 and he refers to Wilson, a 1988 paper.

20 And the next underlined portion in the following  
21 paragraph says:

22 "Managers who want to ensure that they  
23 are indeed maintaining diversity usually  
24 measure only a few groups of organisms."  
25 I take it that you would disagree with

1       that?

2                   MR. BAXTER:  Yes.  Can I comment on each  
3       of those quotes?

4                   MS. BLASTORAH:  Okay.  Perhaps I will  
5       just ask you one more question and then I'll allow you  
6       to comment as you wish.

7                   I was just wondering if you, perhaps in  
8       making your comment, could indicate how does one know  
9       when you know it all, how do you know when you have all  
10      the species, how do you know when your inventory is  
11      complete, because I understand you to be saying that  
12      you shouldn't go on and do further work until you have  
13      a complete inventory.

14                  MR. BAXTER:  Well, first off, two points  
15      there.  You never know if you have it all and,  
16      secondly -- what was your second point there, comment  
17      about -- can I hear that back?

18                  MS. BLASTORAH:  I was just asking how you  
19      know when you have all the species, how you know when  
20      you have all the information.

21                  MR. BAXTER:  I don't know when you have  
22      all the species, but there's no reason to sort of  
23      say -- I know what the second point was.  You don't  
24      wait to do your management until you get the list of  
25      all the species, that's not my point.  My point is



1 bringing the inventory process into an ongoing process,  
2 and then you move along with the planning process for  
3 timber management so these things end up being at the  
4 same place. Just as you have a forest resource  
5 inventory, so you have a biological inventory.

6 May I respond to these?

7 MS. BLASTORAH: Certainly.

8 MR. BAXTER: Okay. I disagree rather  
9 profoundly with Mr. Hunter's or Dr. Hunter's position  
10 on this and I think this is the problem I raised  
11 earlier about presumption in what we -- that what we  
12 don't know isn't all that terribly critical.

13 The first comment here:

14 "As far as I know no one has ever  
15 attempted to list all the species found  
16 in a forest."

17 Now, in fact, there are a couple of  
18 studies, one is by Charles Kendie who is the editor  
19 actually of a long-term study in - the question is, do  
20 I have a reference - long-term study in Illinois on a  
21 forested site which was begun back in about the 1930s  
22 in which they inventoried birds and insect populations  
23 and they certainly showed a number of changes in those  
24 populations over the years.

25 If I have a minute afterwards I can find

1       that reference, I think.

2                       Also the second point here:

3                       "To list all the species for a site would  
4                       probably involve more than just  
5                       collecting thousands of creatures and  
6                       then spending years in a lab with a  
7                       microscope."

8                       Well, certainly if our approach to the  
9       inventory is the same with all levels we would have a  
10      problem, especially if we take the approach of not  
11      doing anything until we get that inventory, and I  
12      haven't suggested that.

13                      What I have suggested is, and just the  
14      opposite in fact, I have suggested that birds and  
15      mammals might be the easiest to start with. Birds, as  
16      I mentioned, you can use song for, small mammals you  
17      can live track. You can get a fairly good indication  
18      of what's present, and by comparing two or three years'  
19      data you start to have a pattern that you'll see as to  
20      what's different and what's the same.

21                      As for the plants, I don't think there's  
22      a serious problem there in putting people out in the  
23      field. There's already a lot of work being done within  
24      the Ministry on that in terms of the FEC. So it could  
25      be expanded to become a bigger part of the project or

1 the program.

2 When we get into microorganisms indeed  
3 there's a problem. With insects I believe that your  
4 goal is to collect what you can, and you get some keen  
5 entomologists out there and they will describe new  
6 species. We want to separate those that we see as  
7 pests from those that appear to be beneficial, and we  
8 would also like to find out if many of those species  
9 that are occurring that we think might be beneficial  
10 are, in fact, part of the system that is beneficial in  
11 some way, whether they're parasatoids or whether  
12 they're actually making some other benefit.

13 So in my opinion this problem is  
14 surmountable. Your ultimate goal is to get all the  
15 species, but you don't have to stop everything else  
16 until you get there.

17 The final point, comparing tropical  
18 forest to temperate forest is a real problem, we do  
19 have a limited number of species known of vertebrates  
20 that have been consistent and in the invertebrates, I'm  
21 sure they're not all described, but it's not as  
22 horrendous as the tropical situation by any means.

23 The final comment about managers.  
24 There's a real philosophy today that somehow to be a  
25 forest manager you can, again, make these far-reaching

1 intelligent decisions on the basis of certain pieces of  
2 information, and this is the philosophy behind featured  
3 species management and, as I said, I think it's  
4 presumptuous in the extreme.

5 If you don't know, you just don't know,  
6 and until you find out what something is doing, you  
7 don't know if what you're missing is important or not,  
8 so you can't go by that basis.

9 MS. BLASTORAH: You indicated just in  
10 responding there and commenting that you thought two to  
11 three years' data could be acquired in relation to  
12 small mammal and bird populations and that would give  
13 you an adequate inventory.

14 MR. BAXTER: That's a starting point,  
15 yes.

16 MS. BLASTORAH: It's a starting point.

17 MR. BAXTER: A starting inventory.

18 MS. BLASTORAH: Would you agree with me  
19 there are natural population fluctuations?

20 MR. BAXTER: Yes, I think we dealt with  
21 that already and, as I said, there are fluctuations,  
22 but in my own experience we went around a common  
23 reference point over the years. In my first three  
24 years in Lake Superior Park I had some variations,  
25 after about the third, into the fourth I started to get

1 consistency and I began to see what those fluctuations  
2 were.

3 MS. BLASTORAH: And your studies were  
4 over what total period?

5 MR. BAXTER: Seven years of intensive  
6 work and then monitoring off and on after that.

7 MS. BLASTORAH: And that's just in this  
8 one and a half hectare area that you referred to?

9 MR. BAXTER: Oh, no. One and a half  
10 hectare is what I'm using now.

11 MS. BLASTORAH: Oh, I see. So this is in  
12 Lake Superior Provincial Park?

13 MR. BAXTER: That reminds me, I don't  
14 know if this is appropriate, but I forgot to submit a  
15 list of the locations asked for by Mr. Cassidy in his  
16 statement of issues.

17 MR. CASSIDY: I'm still here?

18 MR. BAXTER: Pardon me?

19 MR. CASSIDY: I'm still here. So at what  
20 time is it appropriate?

21 MADAM CHAIR: What is in that material,  
22 Mr. Baxter?

23 MR. BAXTER: This is a list of locations  
24 of areas where I did research over the years that I was  
25 involved with the Ministry and independently..



1                   MADAM CHAIR: You requested this  
2 information, Mr. Cassidy?

3                   MR. CASSIDY: Well, I asked it by way of  
4 interrogatory, I believe.

5                   MR. BAXTER: Yeah. You said you would --

6                   MR. CASSIDY: I didn't intend to file it.

7                   MR. BAXTER: You said you would pursue it  
8 as a statement of issue.

9                   MR. CASSIDY: I'm not going to be  
10 criticized for shortening my cross-examination. If so,  
11 it would be a first.

12                  MR. BAXTER: I certainly have the list if  
13 the Board wishes to see it.

14                  MADAM CHAIR: Certainly. Ms. Blastorah,  
15 do you see any need to file this information with the  
16 Board?

17                  MS. BLASTORAH: Not unless Mr. Baxter  
18 particularly wants to, or Mr. Cassidy. I don't think  
19 so. We haven't had a chance to review it and it  
20 wouldn't really be appropriate to try and cross-examine  
21 on it, so I'm certainly not asking that it be marked.

22                  Perhaps just to end off this one area,  
23 Mr. Baxter, I could just ask you whether you agree with  
24 the comment by Dr. Euler during his evidence before the  
25 Board that there can be long-term population

1       fluctuations and it's necessary to do long-term studies  
2       in order to identify those?

3               MR. BAXTER:  Yes, and that's precisely  
4       the reason for wanting an on-staff group of people who  
5       do this year in year out.

6               MS. BLASTORAH:  And you'd agree then that  
7       you wouldn't have complete inventory information as a  
8       result of two or three years' data on any given area?

9               MR. BAXTER:  Well, you would have a  
10      fairly reliable set of data after two to three years to  
11      start from and then you do continuous inventoring to  
12      find out if it's correct or not.

13              MS. BLASTORAH:  And one final question,  
14      and this sort of relates to something Mr. Martel was  
15      asking you about earlier.

16              Given limited funding, and I recognize  
17      that you have a great number of opinions as you  
18      discussed in relation to your book about how the  
19      province's money is being spent, but given limited  
20      funding, do you agree that the Ministry's efforts  
21      should be addressed first to the study of species for  
22      which there's scientific evidence to believe that they  
23      may be the most affected by timber management  
24      activities?

25              MR. BAXTER:  Are you referring to the

1 current list of rare, threatened or endangered species,  
2 is that what you mean?

3 MS. BLASTORAH: You can use that as a  
4 point of reference. I'm just saying where there is  
5 scientific evidence to believe that species may be most  
6 directly affected, or perhaps are in danger as a result  
7 of activities ongoing, that it would be appropriate to  
8 spend money first in the study of those species.

9 MR. BAXTER: No, not exclusively because  
10 the whole issue at stake here is that we have acquired  
11 these apparently threatened species out an unknown set  
12 of circumstances sometimes and there's much speculation  
13 on what's caused those conditions.

14 Now, we had no endangered species at the  
15 time of settlement in this country, those have occurred  
16 as a result of apparently human activity.

17 Consequently, we should not begin to be  
18 presumptuous to think that that alone is all we would  
19 study, because we've been adding to the list of species  
20 threatened or rare or endangered.

21 You've got to have a much broader view --  
22 in my opinion, a much wiser view as to the whole scope  
23 of the system, which means you ask: What's occurring  
24 now naturally that doesn't seem to be threatened? Why,  
25 what conditions are causing those species to occur?

1 MS. BLASTORAH: You'd agree with me, Mr.  
2 Baxter, that it is not exclusively the activities of  
3 man that have given rise to the extinction of certain  
4 species, certainly species went extinct before  
5 extensive human intervention?

6 MR. BAXTER: Well, let's separate the  
7 fossil record from this discussion because we have a  
8 large gap of time in which species maintained a very  
9 consistent integrity in terms of occurrence within this  
10 forest and the populations, for instance, that Audabon  
11 describe in terms of species mix have remained pretty  
12 much what we see today.

13 MS. BLASTORAH: I think those are all my  
14 questions of Mr. Baxter, Madam Chair. I just wanted to  
15 confirm whether an are exhibit number had been given to  
16 the excerpt from the Hunter book?

17 MADAM CHAIR: Yes, that will be Exhibit  
18 No. 1912.

19 MS. BLASTORAH: Thank you.

20 ---EXHIBIT NO. 1911: Excerpt from book by Malcolm  
21 Hunter Jr. entitled: Wildlife  
22 Forests and Forestry, Principles  
23 of Managing Forests for  
24 Biological Diversity, produced by  
Wildlife Department, College of  
Forest Resources, University of  
Maine.

25 MS. BLASTORAH: I think those are all my

1 questions.

2 MADAM CHAIR: Mr. Baxter, I think we have  
3 come to the end of your presentation to the Board. The  
4 Board thanks you very much for your effort and for your  
5 written submission in coming before us today.

6 MR. BAXTER: Okay. Thank you very much.

7 MADAM CHAIR: Thank you, Mr. Baxter.

8 We will adjourn now until the public  
9 session at two o'clock.

10 Thank you.

11 ---On recessing at 12:05 p.m.

12 ---On resuming at 2:00 p.m.

13 MADAM CHAIR: Good afternoon, Mr.  
14 Merrick, Mrs. Merrick.

15 This is our third session for the public  
16 hearing part in Thunder Bay and we were filled up  
17 yesterday, but I do not know if anyone today wants to  
18 speak to the Board or not. We do not have any  
19 scheduled presenters.

20 Is there any indication from anyone in  
21 the audience that they wish to make a presentation to  
22 the Board?

23 (no response)

24 Well, I think given that that we will  
25 adjourn very quickly.



1 Ms. Blastorah?

2 MS. BLASTORAH: I just have one  
3 housekeeping item, Madam Chair. The Affidavit of Tracy  
4 Tieman in relation to the Thunder Bay hearing for the  
5 Timber Management EA, if I could just have that marked  
6 as an exhibit.

7 It is an Affidavit of Tracy Tieman dated  
8 August 21st, 1991 in relation to mailed notices for the  
9 Thunder Bay community hearing, and just for the  
10 information of the Board, 3,079 individual mailed  
11 notices were provided in relation to the Thunder Bay  
12 hearing in addition to the radio and newspaper notices.

13 MADAM CHAIR: Thank you, Ms. Blastorah.  
14 That will Exhibit 1912.

15 MS. BLASTORAH: Thank you.

16 ---EXHIBIT NO.1912: Affidavit of Tracy Tieman dated  
17 August 21, 1991.

18 MADAM CHAIR: And if there is no other  
19 business for the Board, then we are going to adjourn,  
20 and we have given notice that we will be here at seven  
21 o'clock this evening and we will return at that time.

22 Thank you.

23 Excuse me. Ms. Blastorah?

24 MS. BLASTORAH: I was just going to say  
25 should that be 1912?

1 MADAM CHAIR: Yes, it should be.

2 ---On recessing at 2:05 p.m.

3 ---On Resuming at 7:00 p.m.

4 MADAM CHAIR: Good evening. I see that  
5 we do not have anyone scheduled to speak to the Board  
6 tonight, nor did we have anyone this morning.

7 We sat a very long day yesterday and I  
8 think we heard from everyone who wanted to speak to us  
9 this time around.

10 Is there anything anyone wants to say to  
11 the Board?

12 (no response)

13 In that case I think we are going  
14 adjourn. We are going to be starting the hearing again  
15 Monday, at which time we will be hearing from the  
16 Ontario Metis and Aboriginal Association and we will be  
17 starting at 1:30 on Monday, and we will be sitting  
18 Monday, Tuesday, Wednesday and Thursday next week.

19 If that is all there is, then we are  
20 going to adjourn this session of the hearing.

21 Thank you.

22 ---Whereupon the hearing was adjourned at 7:05 p.m., to  
23 be reconvened on Monday, August 26th, 1991,  
commencing at 1:30 p.m.

24

25 [C. copyright 1985].











